DOCUMENT RESUME

ED 323 337 CE 055 681

TITLE	Occupational Component. 16-Level Courses. Integrated Occupational Program. Program of Studies/Curriculum Guide. Interim-1990.
INSTITUTION	Alberta Dept. of Education, Edmonton. Curriculum Design Branch.
REPORT NO	ISBN-0-7732-0053-3
PUB DATE	90
NOTE	264p.; For teacher resource manual, see CE 055 682.
PUB TYPE	Guides - Classroom Use - Guides (For Teachers) (052)
EDRS PRICE	MF01/PC11 Plus Postage.
DESCRIPTORS	Career Exploration; *Course Content; Educational Needs; Educational Objectives; Educational Resources; Foreign Countries; High Schools; *Integrated Curriculum; Learning Activities; Learning Disabilities; Skill Development; State Curriculum Guides; Teaching Methods; Units of Study; *Vocational Education
IDENTIFIERS	*Alberta

ABSTRACT

This curriculum guide provides an overview of the 16-level occupational component of the integrated occupational program for grades 10-12 in Alberta. The integrated occupational program is a vocational education program for students who have experienced difficulty in learning. The program consists of both core and complementary courses designed to develop the skills necessary for everyday living at home, in the community, and on the job. The first 10 sections of the guide provide information on the following aspects of the integrated occupational program: rationale; philosophy; goals; model for the occupational component; interpersonal skills and the social sphere; required and elective components; learning resources; planning; methodology; and evaluation. The final, largest section provides an overall scope and sequence for the program and scope and sequence charts for: agribusiness, business and office operations, construction, creative arts, natural resources, personal and public services, tourism and hospitality, and transportation education programs. (KC)

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INTEGRATED OCCUPATIONAL PROGRAM

Program of Studies/Curriculum Guide

OCCUPATIONAL COMPONENT
16-LEVEL COURSES

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Curriculum

Alberta
EDUCATION

Occupational Component

16-Level Courses

Program of Studies/Curriculum Guide

Grade 10

INTERIM – 1990

ALBERTA EDUCATION CATALOGUING IN PUBLICATION DATA

Alberta. Alberta Education.
Occupational component 16 : program of studies/
curriculum guide.

ISBN 0-7732-0053-3

1. Life skills -- Alberta. I. Title. II. Integrated Occupational Program.

HQ2039.A3.A333 1990 375.008

NOTE

CURRICULAR DOCUMENT FORMAT

To provide educators with a comprehensive overview of the Integrated Occupational Program, all I.O.P. curricular documents have adopted the format of combining the Program of Studies and Curriculum Guide into one document. The shaded statements or segments within this document indicate the prescriptive contents of the Program of Studies. All other advice and direction provided is suggested only.

The terminology and format used in this document reflect policy in effect when I.O.P. curriculum development began in 1987.

METRICATION POLICY

It is the policy of Alberta Education that "SI units become the principal system of measurement in the curriculum of the schools in the province." In preparing students for transition to the workplace where imperial/U.S. measurements may still be in use, both SI metric and other units of measurement are addressed in the practical arts/occupational component of the Integrated Occupational Program.

The comparison/teaching of metric units with other units of measurement should be restricted to those that are relevant to student needs as reflected by common usage in course-related workplaces.

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ACKNOWLEDGEMENTS

Alberta Education acknowledges with appreciation the contributions of the following individuals and school jurisdictions to the development and validation of this publication:

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William Smolak	– Alberta Teachers' Association
Doug Tarney	– Wetaskiwin School District #264

In addition, Alberta Education acknowledges with appreciation the contributions of educators and representatives of business, industry and labour in the development of this publication.

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RATIONALE

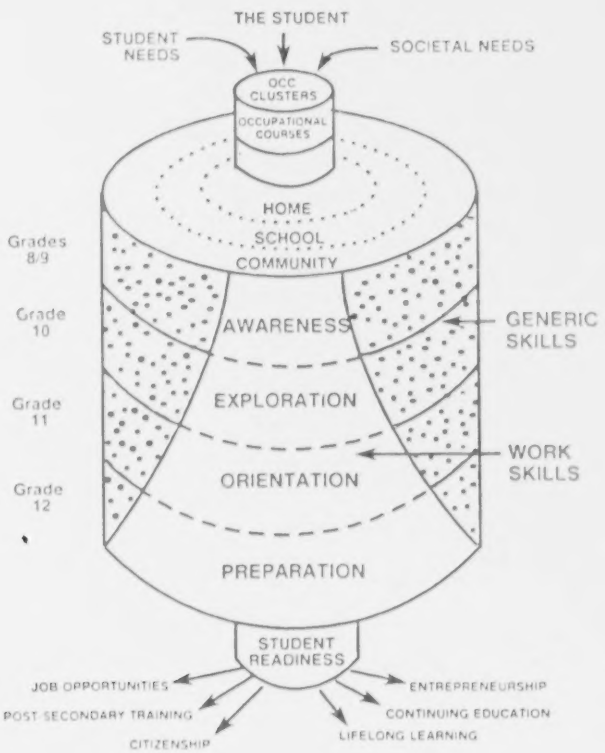
The Integrated Occupational Program, developed as an outcome of the Secondary Education Review in Alberta Policy Statement (June 1985) is a program for students who have experienced difficulty in learning. The program consists of both core and complementary courses designed to develop the skills necessary for everyday living at home, in the community, and on the job. While basic skill development in the academic courses is directed to improving students' skills in communication, computation, and social relationships, the occupational courses also focus on the provision of opportunities for students to apply these skills.

Each of the occupational courses in the Integrated Occupational Program (I.O.P.) is designed to enable students to develop essential concepts, skills, and attitudes in the context of one or more occupational clusters.

In Grades 8 and 9, I.O.P. students will have gained **AWARENESS** of the eight occupational clusters addressed in the occupational component of the program through their participation in an assortment of practical arts learning experiences.

In Grade 10, students will **EXPLORE** potential career opportunities within the eight occupational clusters. Grade 11 students will have narrowed their career focus and will select an **ORIENTATION** in two or more related occupational areas. Grade 12 enables students to narrow their career focus even further and to develop skills in **PREPARATION** for their transition to either the world of work or to other educational/training institutions.

The model shows the sequence of skill development and the anticipated outcomes for students who complete the program and attain a Certificate of Achievement.



The occupational component of the Integrated Occupational Program consists of twenty courses arranged in eight occupational clusters. Each course represents an occupational area that will enable students who complete one or more Grade 10-12 sequence of courses to select employment from families of occupations.

The eight occupational clusters and related occupational courses that comprise the occupational component of the Integrated Occupational Program are:

Occupational Clusters	Occupational Courses
1. Agribusiness	Agricultural Mechanics Agricultural Production Horticultural Services
2. Business and Office Operations	Business Services Office Services
3. Construction and Fabrication	Building Services Construction Services
4. Creative Arts	Crafts and Arts Technical Arts
5. Natural Resources	Natural Resource Services
6. Personal and Public Services	Child and Health Care Services Esthetology Fashion and Fabric Services Hair Care
7. Tourism and Hospitality	Commercial Food Preparation Food Services Maintenance and Hospitality Services
8. Transportation	Automotive Services Service Station Services Warehouse Services

The occupational clusters were identified from federal and provincial government data as being representative of Alberta's economy. The selection of the occupational courses resulted from consultation with educators and representatives from business and industry, and from a review of regional employment projections provided by Alberta Career Development and Employment.

A profile of work skills that relate to each Grade 10 occupational course is contained in the student workbook available for each occupational course, and a scope and sequence chart for each of the three years, Grades 10 through 12, for each occupational course is provided in this document.

PHILOSOPHY

The Grade 10 occupational component of the Integrated Occupational Program is designed to provide opportunities for the student to gather practical learning experiences within the context of the school, home, community, and the workplace. The occupational courses focus first and foremost on the needs of students and seek to build on their strengths. They are designed to help students construct their own bridges as they make the transition from school to the workplace.

Throughout each of the occupational courses, teachers are encouraged to assess the needs of each student in a class and to complement and supplement the curriculum with additional materials that best meet individual student needs.

Three key concepts about the occupational courses emerge from the above:

1. Students need to develop generic, transferable skills that will enable them to become responsible members of society.

2. Students need to develop work skills that will enable them to gain employment in one or more occupational family.

3. Students develop both generic skills and work skills through courses of study that integrate:

   (a) the learning of essential knowledge, skills and attitudes across the curriculum, and

   (b) the school and the community as partners in the educational process.

The integrated occupational courses are designed to enable each student to experience success through learning, to develop a positive self-concept, to develop saleable life skills, and to make the transition from student to work, to contributing member of society.

GOALS OF THE I.O.P. OCCUPATIONAL COMPONENT

The occupational component of the Integrated Occupational Program, Grades 10-12, strives to utilize the learning facilities of the school and the learning opportunities in the community to achieve the goals of assisting students to:

- ask questions and seek assistance when necessary
- show initiative
- follow instruction
- accept constructive criticism
- enhance their self-esteem
- think critically and creatively
- communicate effectively with peers and others
- develop improved social skills
- perform safe-use and safe-behaviour practices in the home, at school, and in the workplace
- develop entry-level work skills
- understand the opportunities available to entrepreneurs
- encourage an interest and a desire to pursue further education and training.

At the Grade 10 level, each occupational course incorporates the following additional goals:

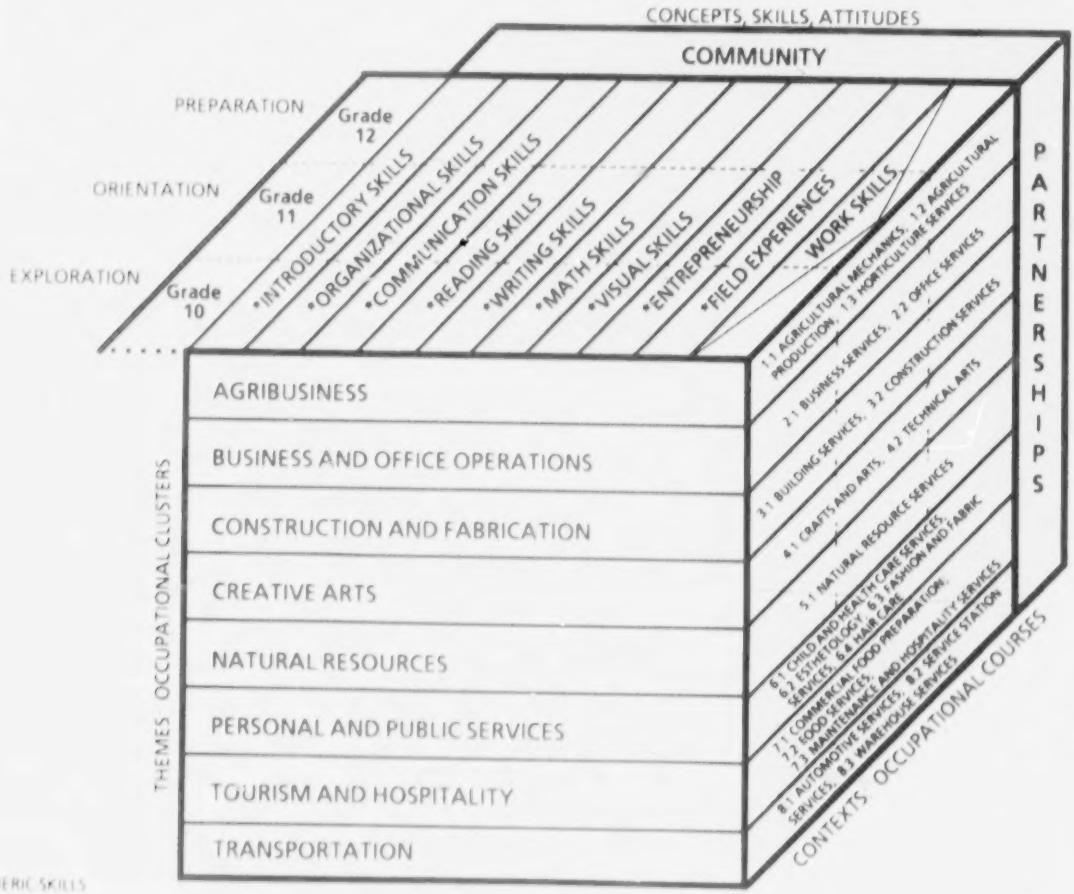
- to reinforce knowledge, skills and attitudes learned across the curriculum
- to provide opportunities for orientation to career opportunities from among clusters of occupations
- to develop organizational skills including good work habits and time and task management.

MODEL FOR THE I.O.P. OCCUPATIONAL COMPONENT

The I.O.P. occupational model illustrates an integration of program dimensions, thus employing the holistic approach to instruction and learning. Four dimensions, which provide a basis for program planning, are represented in the cube:

- Concepts, skills and attitudes
- Contexts
- Community partnerships
- Themes.

OCCUPATIONAL COMPONENT OF THE INTEGRATED OCCUPATIONAL PROGRAM



* GENERIC SKILLS

CONCEPTS, SKILLS AND ATTITUDES

Although this dimension of the model represents the generic concepts, skills and attitudes which the program is intended to deliver, it must be remembered they are not, of themselves, the ends of the program. They are, rather, a type of "road map", providing guidance and direction in planning thematic instructional activities that will provide students with the knowledge and skills required for responsible participation in everyday life and the world of work. The first nine strands describe the generic component of the program. The tenth strand, Work Skills, describes a body of concepts, skills and attitudes that relate to, and are transferable among, two or more of eight occupational clusters. The Work Skills strand contains two components:

- a generic component common to all occupational courses
- a component specific to each occupational course.

CONTEXTS FOR INSTRUCTION

The context for instruction provides relevance for student learning. In the occupational component of I.O.P., the contexts are twenty occupational courses that represent the scope of career opportunities available in the Province of Alberta.

COMMUNITY PARTNERSHIPS

This dimension of the model indicates the relationships that are developed between the school and the community in order to provide students with applications of learning in real life settings.

THEMES

Themes provide the setting in which discrete skills and strategies are linked together into meaningful activities. The twenty courses which comprise the occupational component of I.O.P. are addressed through eight themes, each representing a cluster of occupations.

STRATEGIES IN LEARNING AND TEACHING GENERIC SKILLS

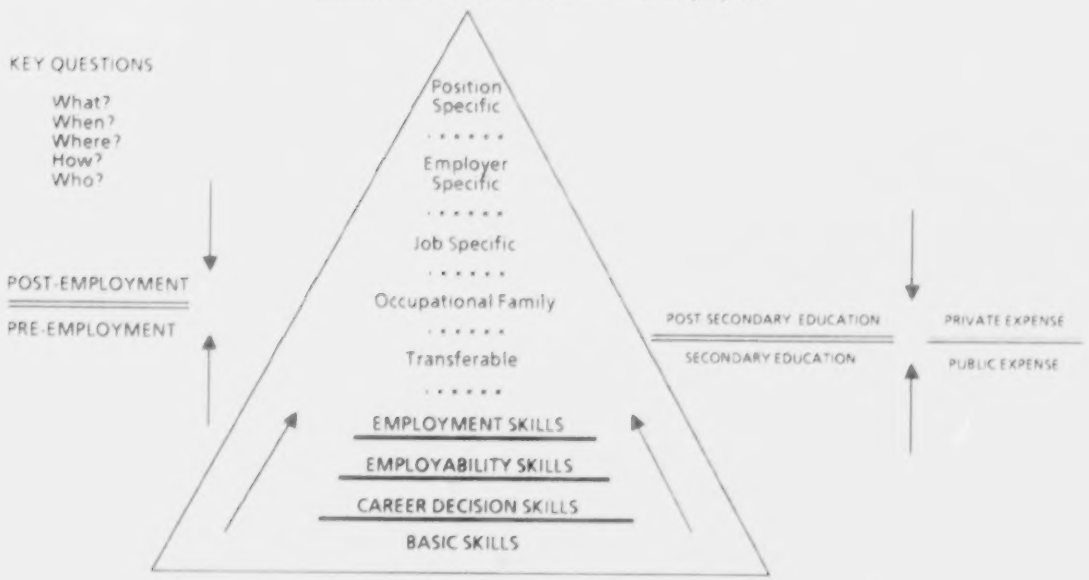
To facilitate a smooth transition from school to the workplace, students should be able to:

- identify employment opportunities and engage in the job search process
- relate well to others
- demonstrate safe and sanitary behaviours
- practise ethical behaviour and time and task management
- communicate effectively with peers and others
- demonstrate basic literacy and computational ability (reading, writing, mathematics, and visual skills)
- recognize the nature of entrepreneurship and the potential for entrepreneurial activities in our society.

Since these concepts, skills and attitudes are essential in any occupation, they are termed "generic". Students who demonstrate these abilities at the completion of the Integrated Occupational Program should be able to obtain employment in a broad range of occupations. To enhance employment opportunities, the occupational courses provide students with basic work skills that prepare them for entry to one or more clusters of occupations, as opposed to a specific job within that cluster. Commenting on the need for and purpose of generic skills, Dr. R.E. Taylor notes:

> "Proper treatment of generic skills in the educational process. . . contributes to efficiency in delivery. . . gives individuals flexibility and greater opportunity for job placement in related jobs. . . ; preserves options for individuals with respect to career choice and more specific training later."[1]

Model of the Stages in Preparation for Employment



1. Taylor, R.E. *Generic Skills and Vocational Education.* Paper presented in Edmonton, Alberta, February 1987. Dr. Taylor is Executive Director of the National Centre for Research in Vocational Education, the Ohio State University.

Dr. Taylor defines the major components of his model as follows:

BASIC SKILLS: communication skills -- oral and written, computation skills, higher order cognitive skills such as reasoning and problem solving, interpersonal skills, learning skills

CAREER DECISION SKILLS: developing a sense of ownership and control through self-awareness, career awareness, knowledge of world of work trends and opportunities, career planning skills, career reassessment skills and career transition planning

EMPLOYABILITY SKILLS: knowledge of employment options, attitudes toward work, work habits, job seeking and retention skills

EMPLOYMENT SKILLS:

Transferable – skills that are applicable in a variety of job situations; e.g., keyboarding, following instructions, planning, estimating, team work, group problem solving, quality control skills, scientific and computer literacy, work experience

Occupational Family or Cluster – skills common across a cluster; e.g., terminology, materials characteristics, materials handling, blueprint reading, measurements, knowledge of processes, record keeping, safety and hygiene

Job Specific – skills required to accomplish particular tasks such as to machine metal, lay brick, level a field, repair an internal combustion engine

Employer Specific – skills that are particular to an industry or firm; e.g., working for General Motors machining metal for crankshafts for car, truck or tractor engines

Position Specific – skills related to a particular placement within a firm; e.g., working for General Motors in Plant X machining metal crankshafts for small truck engines using a Cincinnati Milicron Automated Turning Centre Model with tolerances of 0.000? Under Supervisor Z with co-workers A, B, C, D

The components of Dr. Taylor's model have been adapted for use in the occupational component of I.O.P. as indicated in the following chart:

I.O.P. OCCUPATIONAL MODEL	MODEL OF THE STAGES IN PREPARATION FOR EMPLOYMENT
Generic Skills	• Basic skills • Career decision skills • Employability skills • Transferable employment skills
Work Skills	Employment skills related to: • an occupational cluster • a specific job • a specific employer • a specific position

STRATEGIES AND PROBLEMS IN LEARNING AND TEACHING GENERIC SKILLS

There are two main strategies used to deliver generic skills: one is to teach them as a content area and as a precursor to more specific occupational orientations and applications; the other is to infuse them into specific occupational training, and to teach their applications as a part of specific occupational preparation.

The chief drawback to the first approach is that skills taught without applications can appear meaningless to students. Limited application of the generic skills to a range of situations in various occupational areas also tends to limit the general approach.

The second approach of integrating generic skills in occupational content has the benefit of higher student interest and motivation and an enhanced experiential background. It also provides specific contexts within which the generalized learnings may be applied.

Teachers should encourage students to indicate applications of generic skills to other occupations and context. This strategy will develop the students' ability to transfer acquired concepts, skills, and attitudes to other settings and situations.

> "We must capacitate students as active partners for their own learning by giving them opportunities and responsibilities for establishing and recognizing learning goals, and opportunities for seeking out and achieving them both within the school curricular structure and within the home and community."[1]

Cooperative planning for instruction with other teachers in the school (teachers of core subjects, CALM, and other complementary courses) will contribute to the list of generic skills and to ways to reinforce these skills by expanding their range of application. Similarly, teachers of occupational courses should take every opportunity to reinforce core curricula skills in each occupational course.

Students and potential employers need documentation of generic skills mastered and the variety of contexts (occupational courses) in which these skills have been applied.

As teachers, students, parents, and the community become more aware and involved in the development of the generic skills and other outcomes designed to meet the goals of the Integrated Occupational Program, a partnership is formed. This partnership acknowledges and reinforces the generic skills, the learning process, and the outcomes of the learning process.

The scope and sequence of generic skills related to the occupational component of the Integrated Occupational Program are outlined on pages 27-32.

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1. Taylor, R.E. *Generic Skills and Vocational Education.* Paper presented in Edmonton, Alberta, February 1987.

INTERPERSONAL SKILLS AND THE SOCIAL SPHERE

High school students are in a transitional stage of life. Adolescence, which is characterized by rapid growth and the onset of puberty, is often a time of uncertainty and excessive concern about peer relationships. Responses in early adolescence may appear to be stressful, as students are developing the ability to reflect upon and analyze their emotions. Students at this age are practising to be adults.

The instructional program does affect interpersonal learning. However, schools are not the sole influences on the students' emotional, social and moral development.

The Goals of Secondary Education directly state the importance of affective, interpersonal and moral goals when they indicate that students should:

- learn about themselves and develop positive, realistic self-images
- develop constructive relationships with others based on respect, trust, cooperation, consideration and caring as one aspect of moral and ethical behaviour.

Students will vary in their emotional/social development and their ability to cope with personal problems. Behaviours viewed as "problematic" are often simply an indication of the adolescent's lack of sophistication in using adult skills. Classroom instruction must provide a variety of approaches that will encourage students to reflect upon their responses in social situations and to develop productive interpersonal skills. The guidelines that follow have been adapted from Alberta Education's monograph *Students' Interactions: The Social Sphere* (1988), and are intended to foster affective, interpersonal and moral learning within the classroom.

- Model appropriate behaviour for students. When teachers are polite and respectful of students' dignity, students will respond positively. Students imitate and thereby implicitly learn to deal with emotions, other people and moral issues by observing the consistency of adult behaviour.
- Encourage students to express their opinions and feelings, to ask questions and to accept emotions as they occur in day-to-day life. Through mediated learning, encourage students to examine emotional responses from different frames of reference, and to organize and interpret their own responses as well as the responses of others.
- Provide students with supportive comments, guidance and genuine expressions of concern. Set expectations that are firm and fair, and then believe in the students' ability to meet these expectations and do well. Develop "working agreements" to help tasks flow smoothly, and to ensure that students understand the nature of the instructional tasks they are asked to perform.
- Ensure that classroom management practices and rules are known, upheld, moderate in nature, negotiable, and consistently applied. Responding to the harmful or unjust effects/consequences of a moral transgression is more effective than reference to broken rules or unfulfilled social conventions.
- Recognize that experiential learning is a particularly effective vehicle for teaching interpersonal skills. Although some learning may occur through listening and reading, one best learns to live with other people by living with other people. Cooperative learning techniques are especially useful where students are actively involved in lessons linked to their own needs, interests or experiences.

- Be aware that although adolescents deal with a number of issues, they usually cope by managing one problem/issue in their lives at a time. Help students to integrate various aspects of their lives by encouraging them to recognize how various problems/issues/solutions are often interrelated.

- Assist students to learn skills that are more appropriate in differing contexts. Although some students are described as "lacking in social skills", socially maladapted students do not necessarily lack skills or social involvement; rather, they use inappropriate skills in particular contexts. When directly teaching interpersonal skills, be as concrete as possible, and "build bridges" by linking situations with appropriate actions and behaviours.

- Assist students to focus on the need for a system of shared conventions. As students affirm the social system of conventions, they will view conventions more positively and will become less disruptive in their behaviour.

- Encourage students to interpret and evaluate the competing moral issues presented to them. Provide opportunities for open discussion and debate, where students interact with their peers. Discuss issues that are "real" to the student.

- Provide students with practical strategies for resolving interpersonal conflict. A framework for social problem solving is provided in the *Teacher Resource Manual*. This framework uses a problem-solving approach in helping students to identify:
  - reasons for the difficulty
  - strategies to avoid the conflict another time.

Student development in the affective, interpersonal and moral domains has been addressed in this curriculum through attitudinal learning objectives that accompany each cluster of concepts and skills in the *Program of Studies/Curriculum Guide*. Instruction must include a balance of approaches appropriate to student development in each domain, as delivery of isolated content will not ensure the formation of desired attitudes. The *Teacher Resource Manual* provides additional strategies that facilitate attitudinal development within the context of themes suggested in the program.

REQUIRED AND ELECTIVE COMPONENTS

The learning objectives identified in this *Program of Studies/Curriculum Guide* are generic to all of the Grade 10 occupational courses within the Integrated Occupational Program. Learning objectives specific to the development of work skills within an occupational course are identified in the *Teacher Resource Manual*.

Both the generic and the work skills learning objectives are designed to accommodate individual student differences through the identification, in each occupational course, of:

- elective components that may be used as enrichment activities
- optional learning activities that provide the teachers and students with the flexibility to select and adapt course content to meet local needs, interests and resources.

In addition, the teacher is expected to make an assessment of each student's abilities upon entering an occupational course (see *Teacher Resource Manual*, "Assessing Students' Abilities") and to develop a teaching plan that provides each student with sufficient time to acquire competencies and to experience success at each step of the course.

In this context, teachers are advised to individualize their expectations of student performance, and to provide remedial or enrichment activities to individual students, as indicated, by assessing their ongoing performance. The elective component of each occupational course permits teachers to:

- remediate or reinforce skills from the required component that appear to be weak
- extend or expand upon topics, thus embedding additional concepts, skills and attitudes considered appropriate to student interest and need
- enrich the program by introducing new concepts and activities considered relevant to the student and the local community.

The instructional time for each occupational course should be apportioned:

- 80% Required
- 20% Elective

LEARNING RESOURCES FOR THE I.O.P. OCCUPATIONAL COMPONENT

STUDENT RESOURCES

BASIC LEARNING RESOURCES

The resource listed below meets the majority of the goals and objectives identified in this *Program of Studies/Curriculum Guide*.

Campbell, Richard and Mary J. Thompson, et al. *Working: Today and Tomorrow.* Canadian Edition. Toronto, Ontario: Irwin Publishing, 1990.

Working: Today and Tomorrow provides for the focused development of the generic concepts, skills and attitudes identified in the Grade 10 Program of Studies. It is intended that appropriate sections of the text be used throughout the sequence of each occupational course, Grades 10-12.

SUPPORT LEARNING RESOURCES

A student workbook is available for each occupational course. The workbook related to each 16-level occupational course provides students with information, exercises, and job sheets that follow the scope and sequence of skill development identified in the Work Skills Profile contained in each student workbook.

The specific activities and projects contained in the workbooks are not meant to be prescriptive or exhaustive; rather, they may provide points on which to focus the development of specific learnings related to an occupational cluster.

Teachers are encouraged to complement and supplement the material contained in student workbooks to meet individual student's needs.

TEACHER RESOURCES

The teacher resource listed below are designed to support the instructional use of the basic learning resource:

The *Teacher Resource Manual* (1990) for I.O.P. 16-level occupational courses developed by Alberta Education contains strategies and suggested student activities intended to structure and support:

- development of the concepts, skills and attitudes as outlined in the Program of Studies
- development of life and work skills
- delivery of instruction in each occupational course.

The *Teacher Resource Manual* (TRM) contains the following information:

1. Generic Skills Evaluation Chart

   As indicated in the Occupational Model, the curriculum for each occupational course consists of ten major strands (concepts, skills and attitudes). Nine of these strands (1-9) are categorized as "Generic Skills" (concepts, skills and attitudes). The tenth strand, Work Skills, consists of both a generic component and a component which is specific to each occupational course.

   Generic concepts and their related skills focus on the development of students':

   - knowledge about the world of work
   - knowledge about job opportunities and career ladders
   - awareness of and the ability to demonstrate safe-use and sanitary practices in the workplace
   - attitudes and ethics appropriate to good citizenship, good workmanship, and lifelong learning.

   In addition, the generic concepts and their related skills REVIEW, REINFORCE and APPLY concepts, skills and attitudes learned in the core curricular areas. These integrated generic concepts permit further skill development in the areas of:

   - communication
   - reading
   - writing
   - computing
   - viewing.

   THE GENERIC CONCEPTS AND THEIR RELATED SKILLS AND ATTITUDES SHOULD, WHENEVER POSSIBLE, BE TAUGHT IN THE CONTEXT OF THE OCCUPATIONAL CLUSTER AND IN CONJUNCTION WITH THE WORK SKILLS SPECIFIC TO THE OCCUPATIONAL COURSE.

2. Instructional Guides

   Each concept and its related skills and attitudes is addressed in the *Teacher Resource Manual*. Key ideas, resource indicators, and suggested student activities/community partnerships are included. The contents of the instructional guides are not meant to be prescriptive or exhaustive. Rather, they are presented to stimulate and to guide teachers in their integrated unit and lesson planning.

3. Selected Resources

   In support of the instructional guide component of the *Teacher Resource Manual*, a list of additional resource materials is provided. In some cases, copies of selected reference materials are included.

4. Teacher Support Material

   A student workbook is available for each occupational course within the Integrated Occupational Program. The *Teacher Resource Manual* contains teacher support material related to each occupational course.

The teacher support material related to each occupational course, includes:

- course sequencing, credits and certificate requirements
- course objectives and overviews
- suggested locations, facilities and other learning resources.

OTHER LEARNING RESOURCES

Other learning resources are identified for each occupational course in the Occupational Component 16-Level Courses: Teacher Resource Manual.

The titles of these other learning resources in the *Teacher Resource Manual* were provided through the courtesy of the agencies and institutions indicated. This listing is not to be construed as an explicit or implicit departmental approval for use. These titles are provided as a service only to assist local jurisdictions to identify resources that contain potentially useful ideas for teachers. The responsibility to evaluate these resources prior to selection rests with the local jurisdiction according to local policy.

TECHNOLOGY AND MEDIA

REGIONAL RESOURCE LIBRARIES

Films and videos are available for loan through the five centres listed below. In some instances, computer software is also loaned. Catalogues of holdings are available upon request.

Zone I

Peace River Regional Film Centre
c/o Peace River School District No. 10
P.O. Box 6536/10020 - 101 Street
Peace River, Alberta
T8S 1S3
Telephone: 624-3178

Zones II and III

Central Alberta Media Services
c/o Sherwood Park Catholic Separate School District No. 105
2017 Brentwood Boulevard
Sherwood Park, Alberta
T8A 0X2
Telephone: 464-5540

Zone IV

Alberta Central Regional Education Services
County of Lacombe No. 14
Box 3320/5140 - 49 Street
Lacombe, Alberta
T0C 1S0
Telephone: 782-5730

Zone V

South Central Alberta Film Federation
Westmount School
County of Wheatland No. 16
Box 90/Wheatland Trail
Strathmore, Alberta
T0J 3H0
Telephone: 934-5028

Zone VI

Southern Alberta Regional Film Centre
c/o McNally School
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ACCESS NETWORK

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PLANNING

COURSE DELIVERY

Since the I.O.P. courses will be offered in a number of very different communities and schools, a flexible approach to course delivery is necessary. Some jurisdictions may choose to offer courses in one occupational cluster, others in four or five clusters. Occupational course offerings in individual schools should be selected to accommodate the:

- needs and interests of students
- availability of school facilities
- availability of community resources
- availability of teachers with skills related to occupational areas.

COURSE CREDITS

Students taking a complete program of studies from within the Integrated Occupational Program will have the opportunity to select from among the occupational courses available in each high school.

Each Grade 10 occupational course is offered for either three or five credits and students have the opportunity to be oriented to two or more occupational courses during Grade 10. (Grades 11 and 12 courses are offered in 10-credit packages.) In total, a student is required to take a minimum of 40 credits in occupational courses throughout the senior high program and 27 credits in specified academic courses in order to qualify for a Certificate of Achievement. Students are required to obtain a minimum of 13 additional credits in order to complete their Certificate of Achievement. Some or all of these additional credits may be obtained through completion of additional occupational courses.

COURSE CONTENT

The detailed work skills identified in each scope and sequence chart (pp. 129-270) provide the suggested content for each Grade 10 occupational course. Suggestions for flexibility in the selection and inclusion of instructional content are provided in the teacher support material found in the *Teacher Resource Manual*.

Prior to planning for instruction, the teacher is advised to examine the teacher support material related to the Occupational 16-level course to be taught.

Elective and enrichment activities are indicated both in this document and in the *Teacher Resource Manual*. However, teachers are encouraged to supplement and complement the work skills component of each occupational course with additional projects and activities that meet the needs of students and provide an additional orientation to occupational opportunities in the local community.

COURSE TRANSFER

A student who demonstrates a high level of interest and ability in 16-level occupational courses may be recommended for transfer to an appropriate course in other subject areas; e.g., business education, home economics, industrial education.

The teacher is advised to consult with others including the student, parents, school counsellor and administrator, to determine whether transfer to a higher level course would be in the student's best interest.

CURRICULAR INTEGRATION

The design of the core and the occupational courses within the Integrated Occupational Program is developed on the premise that the concepts, skills and attitudes required by students in order to make the transition from school to the workplace can be taught through strategies that provide for REVIEW, REINFORCEMENT and APPLICATION of learnings in real life contexts and situations.

Each occupational course provides a real life context for the review, reinforcement and application of concepts and skills learned in other courses, both core and complementary.

Teachers have traditionally tended to integrate concepts, skills and attitudes from other subject areas into their teaching specialty; however, this tendency has generally been incidental rather than by curricular and instructional design. In contrast, the Integrated Occupational Program is designed to integrate related concepts, skills and attitudes across the curriculum. In addition, teachers in the program are encouraged to adopt integrated planning and teaching strategies.

COMMUNITY PARTNERSHIPS

A major feature of each occupational course is the inclusion of activities and strategies that may be used to enhance student learning through school-community partnerships. Community partnerships include both in-school visits, demonstrations, talks, etc., given by community members, and teacher/student observations, job-shadowing, work study and work experience activities within the community. In each occupational course at the Grade 10 level, teachers are encouraged to develop their instructional plan to include a minimum 20% time allocation to community partnersl p activities.

METHODOLOGY

Emphasis has been placed on relating much of the content of each 16-level occupational course to the concepts, skills and attitudes learned across the curriculum. The transferable and related content of each occupational course is described as "generic skills".

In addition to the body of generic skills, each 16-level occupational course is identified in this document by a scope and sequence chart of related work skills. It is through the development of these work skills that students learn the generic skills in an applied and meaningful context; that is, an occupational course.

The design of the core and the practical arts subject areas within the Integrated Occupational Program is developed on the premise that the concepts, skills and attitudes required by students in order to make the transition from school to the workplace can be taught through strategies that provide for APPLICATION, REINFORCEMENT and REVIEW of learnings in real life contexts and situations.

The I.O.P. occupational courses provide a real life context for the review, reinforcement and application of concepts and skills learned in other courses, both core and complementary.

INTEGRATING GENERIC SKILLS AND WORK SKILLS

Both generic skills and work skills are transferable. The generic skills and some of the work skills are transferable across the curricula; additional work skills are transferable across a cluster of occupations and, in some instances, among clusters of occupations. For example, learning the correct use of hand, power, layout and measuring tools, provides students with concepts, skills and attitudes that are applicable in almost every occupational cluster and in other home and community situations.

Teachers are encouraged to make students aware of the transferability of both the generic skills and many of the work skills. Suggested strategies for skills integration are provided in the *Teacher Resource Manual*.

INSTRUCTIONAL STRATEGIES

In recent years, a greater awareness of individual differences in learning styles, rates of learning, and the needs of individual students has fostered changes in attitudes, teaching methods and curriculum materials. These changes are designed to meet the needs of students. The changes do not mean that the quality of a course is lessened; they do, however, mean that occupational related courses are being redesigned to increase the opportunity for each student to learn and develop a body of concepts, skills and attitudes that will enhance employability, develop citizenship skills, and promote lifelong learning.

Instructional strategies that may assist the teacher of an occupational course to achieve these goals include:

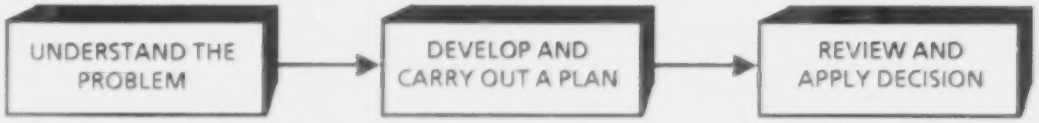
- Modify the sequence and, if necessary, the scope of the curriculum to reflect the ability of the students.
- Use elective components to provide enrichment activities.
- Integrate one or more generic skills as appropriate while teaching each work skill.
- Increase the meaningfulness of the curriculum by adapting it to meet local industry and job opportunities.
- Use community partnerships to create real life learning experiences.
- Use varied instructional strategies; e.g., individualized instruction, small-group instruction, job shadowing, mentorship.
- Involve students in creating their learning environment; e.g., have students "personalize" their work area, decide on seating arrangements.
- Minimize lectures.
- Maximize hands-on activities.
- Use visual aids to teach, review and reinforce information.
- Encourage students to take some responsibility for their own and peers' behaviour, attendance, performance; e.g., foster an environment of helping, sharing and caring.
- Use incremental teaching/learning techniques.

USING THE PROBLEM-SOLVING/DECISION-MAKING MODEL

The problem-solving and decision-making model used throughout the Occupational Component 16-Level Courses curriculum does not form an independent theme or unit of study. However, it is essential that the teacher introduce the model at the beginning of the course. It will then form the basis for problem solving, decision making and thinking throughout the entire program.

Critical to the development of decision-making skills is the attitude with which students approach the task. A positive, open-minded approach is needed for thinking skills to develop. Attitudes are not taught, however. Their development can only be nurtured through an atmosphere that fosters flexibility and acceptance. Students must be encouraged to take risks in the development of particular decision-making strategies. Student understanding of problem situations and the decision-making process should be made a priority through consideration of the context within which discussion and activity will take place. Problem situations should be selected from those that are within the range of student experience, interest and need.

The six steps of the decision-making model correlate with the input, process and output phases of cognitive functions.

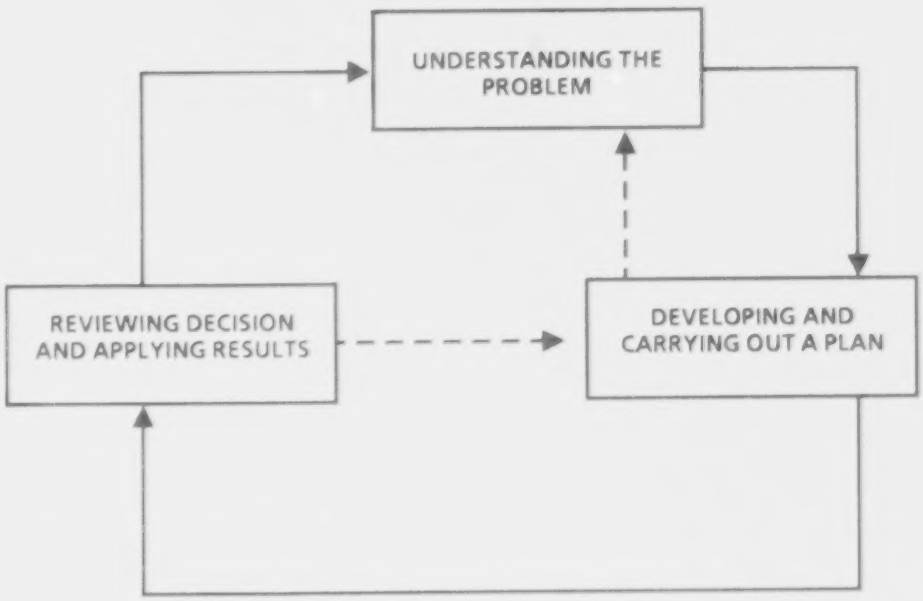


1. Specifically state the decision to be made or problem to be solved.
2. Gather pertinent information or data relevant to the decision or problem.
3. Outline the alternatives that are available.
4. Select a "plan of attack" – make a decision.
5. Follow through with the decision – some form of action.
6. Evaluate the desirability of the decision through time.

The student must become an active participant in this process. Conscious application of this model results in metacognition or "thinking about thinking". Metacognition thus becomes a second major goal of this process. Continuous application of this process erodes mental sets and allows the student to function in a more flexible, adaptive manner.

Flexibility and adaptability of attitudes, problem-solving and decision-making strategies are the key to productive functioning in a dynamic, ever-changing society.

The decision-making model outlined should not be interpreted as a model consisting of fixed and rigid stages and strategies. Its use will depend on individual problems and individual students. Students may not always use each stage of the decision-making process, and will select only those strategies that are appropriate to the problem. Students should recognize decision making, however, as a series of interrelated actions that lead to a solution.



ENHANCING STUDENT PARTICIPATION IN THE LEARNING PROCESS

The occupational courses attempt to have students become active participants in their community and society. They also attempt to have the student become an active participant in the decision-making and learning processes.

Student performance in decision making can be enhanced by making students conscious of their thought processes (i.e., metacognitive awareness). They need to be aware of and discuss how they think in order to become more strategic in their learning repertoires, and to monitor their decision-making efforts. The teacher can foster this by thinking out loud as he or she solves problems, by asking questions and by having students identify the strategies and processes used when making decisions. Consistent modelling by the teacher of a mind set to the stages and strategies outlined will provide a structure within which student decision-making skills can develop.

Modelling, as opposed to demonstrating, involves "talking through" a complete process in order to expose thinking processes to the student. While in a demonstration everything turns out as it should, modelling should include false starts, trouble spots, and having to deal with errors. Modelling requires teachers to express their thinking processes out loud so that students can see not only how the process is done, but also how difficulties and ambiguities are addressed.

While teachers often model when explaining processes and problems, knowledge and awareness of the value of modelling can serve to sharpen this process. Asking students where to begin in a problem situation makes a good starting point. If the reply is "I don't know!", an area of difficulty is determined. The "mini process" of determining a starting point might then be modelled.

INSTRUCTIONAL MEDIATION

Instructional mediation is one method of enhancing students' active participation in the learning process (Feuerstein, 1979[1]). Mediation refers to the teacher transmitting to the student what is considered important by the community and society. It also refers to the teacher's interpretation of the physical and social context for the student. To be "mediative", the act must meet at least three criteria:

- the mediation must be MEANINGFUL. Teachers should constantly refer to "real life" examples of how the content relates to reality, both in and out of school
- it must be the teacher's INTENTION to have the student learn something specific. The teacher should ensure the student understands specifically what has to be learned
- the mediation must have a TRANSCENDENT goal.

Instructional mediation regulates the students' behaviour in terms of the use of strategies and heuristics on tasks. Emphasis on a strategic view of tasks will encourage students to become independent in the tasks they perform and the processes they use. For example, a strategy for attacking a specific task problem will enable more students to solve similar problems on their own. In addition, such a strategy enables the student to identify for the teacher at what point they need assistance if they are unable to solve the problem completely.

A further use of mediation is in developing the students' feeling of competency. Students need to see themselves as competent and able to do things. Students who feel competent, and who recognize their effort as being effective in learning, are more likely to be persistent in attempting new tasks that are difficult. On the other hand, students who require frequent praise for their effort come to have limited performance goals and are hesitant to engage in any task at which they cannot quickly become successful. Teachers can encourage students to extend their learning goals by focusing mediation on the role of effort and strategy in achieving success, rather than in praising performance.

In creating a classroom environment that will stimulate strategic behaviour and thinking skills, the teacher should:

- identify, but not correct errors
- encourage students to correct their own errors
- pause and clarify, but not interrupt
- demand constant vocalization of student thought processes that are used, and model these for students
- encourage persistence.

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1. Feuerstein, Reuven. *The Dynamic Assessment of Retarded Performers: The Learning Potential Assessment Device, Theory*. Instruments and Techniques. Baltimore, Maryland: University Park Press, 1979 (p. 71).

The mediation process can also be enhanced through the use of appropriate "questioning techniques" and the "modelling" of complete processes and thought patterns. These instructional methods are described in the paragraphs that follow.

QUESTIONING TECHNIQUES

Questioning techniques should include the use of chains of questions that lead students to discover their own answers. Question chains should begin with focus questions such as:

- What is the goal of this problem?
- What do we want to do?
- What are we looking for?
- What is stopping us?
- Who can we ask?
- Where can we look?
- What should we do first?
- What is this process called?

Once students have established the significant pieces of information necessary to perform the task or to solve the problem, the focus is expanded through questions like:

- What can we do?
- Have we got enough ideas yet?
- What is our next step?
- How will we do that?
- What is the relationship between . . . and . . .?
- How are . . . and . . . related?
- How can we simplify . . .?

When students have succeeded with the task or problem, questions should be asked that encourage students to review the process used and evaluate their work. Such questions may include:

- Have we finished?
- How can we decide if . . . is a reasonable solution?
- How can we check this solution?
- Is there a better solution?
- How do you know that we have solved the problem?
- What are different ways we can approach the problem?
- How could we make our work easier another time?
- When might you use this process again?
- What should we tell others?

Questions that probe and prompt students to process information, rather than fixate at the simple recall level, will make students aware that they are expected to be actively involved in thinking processes. When students experience success with problems through use of the teacher's questioning chain, they will discover the importance of the thought processes used, and be encouraged to develop personal strategies that direct their efforts in related tasks.

The PMI strategy (de Bono, 1986[1]) also helps students systematically explore a subject in depth. This strategy focusses students attention on the "Plus" (P) aspects, then the "Minus" (M) aspects, and finally the "Interesting" (I) aspects of a concern or issue. This strategy also allows the student to view how others think. The following four-step procedure can be used:

1. Assign a topic or task based upon student interest or course content.

2. Divide the class into groups of three or four students and have them divide a sheet of paper into three columns labelled (P), (M) and (I).

3. Ask students to <u>think</u> about the "Plus", "Minus" and "Interesting" points of the discussion topic or task and write them in the appropriate column. NOTE: All points are to be accepted without judgment or bias.

4. Share the points raised with the rest of the class, and discuss.

A practical extension to this strategy might be to have each group of students produce a project based on the outcome of their PMI strategy. Each group of students will then have the opportunity to evaluate their decision-making and project production skills in relation to the other groups.

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1. de Bono, Edward. "The Practical Teaching of Thinking Using the CoRT Method." *Special Services in the Schools*. Volume 3, Numbers 1/2, Fall/Winter, 1986 (p. 39).

EVALUATION

Evaluation involves the collection, processing and use of information to formulate judgments about student progress, ability and performance. Teachers of Integrated Occupational Program courses will therefore need to undertake both formative and summative evaluation. Because of the nature of the courses and the nature of the students, ongoing or formative evaluation should be emphasized. Formative evaluation provides information during the process of learning to determine the progress of individual students, and their strengths and weaknesses in the acquisition of necessary knowledge, skills and attitudes. Summative evaluation should also occur at the end of each major segment of a course to assist in making judgments about the overall level of achievement in the course, final grades, and future course placement.

In occupational courses, summative evaluation may refer to the mastery of a specific practical skill or combination of skills. The evaluation of skill mastery tends, however, to be very subjective. Teachers are encouraged to seek assistance from colleagues and community partners when evaluating mastery of practical skills.

Major functions served by the process of evaluation include:

- provision of feedback to the student relative to his or her success in the learning process. Students may have difficulty in monitoring and regulating their learning behaviours, and, therefore, require a great deal of external feedback as to their progress. Feedback and encouragement must be provided on a regular basis
- provision of information to the teacher concerning the appropriateness of learning goals and objectives, and the effectiveness of learning strategies and materials that have been used. Such information enables the teacher to modify the program as required with respect to pacing, learning resources, teaching methods or objectives
- provision of information to the parent regarding the student's progress. Where appropriate, reports to parents/guardians should be interpreted through an interview so that the implications of the evaluation are understood. While useful in communicating student progress to parents/guardians, the interview is also valuable in identifying individual needs that may be met through program planning and delivery.

Evaluation should serve diagnostic purposes in identifying student strengths and weaknesses, as well as summative needs in measuring overall growth. Because evaluation is an integral part of all aspects of the instructional process, information used in the evaluation of a student should be gathered from a variety of sources using a variety of methods. The evaluation program in each occupational course must consist of more than paper-and-pencil tests. While such tests may be an effective way of evaluating the learning outcomes of specific work skills and applications, an effective system of evaluation should include, to some degree, the use of all of the following sources of information:

- observation of attitudes and performance
- oral and written presentations of solutions to problems/life and work skill applications
- personal interviews with students
- attitude scales
- project work (e.g., job sheets)
- feedback from parents
- teacher rating scales/checklists/inventories
- self-rating/self-marking
- peer marking
- records of previous achievement

- quizzes related to specific objectives
- diagnostic tests.

STRATEGIES FOR EFFECTIVE EVALUATION

Evaluation was, in the past, the process by which many students within the program were identified as "failures". Many students will go to extreme measures to avoid being "tested" again. Absence from examinations; feigning an "I don't care anyway" attitude; or not giving their best effort so that the anticipated failure can be combatted with "I didn't try my best", are all common behaviours. Although evaluation is a fact of daily life and necessary to the program, efforts must be made to provide variation in the procedures used so as to draw upon students' strengths and provide for their success in the evaluation process.

EVALUATION OF THE OCCUPATIONAL COMPONENT

A variety of methods of evaluating student progress should be used in occupational component courses. When choosing an evaluation procedure, the teacher should consider the appropriateness of the procedure to the knowledge, skill or attitude being evaluated.

An objective of the Integrated Occupational Program occupational courses is to provide a learning situation whereby students may improve their self-concept. With this in mind, the following evaluation strategies are suggested:

- identify smallest units of behaviour in each skill
- evaluate and reinforce progress incrementally
- evaluate and reinforce positive behaviour regularly
- use a combination of evaluation techniques including checklists, observations, project work, written and oral presentations (sample evaluation instruments are included in the *Teacher Resource Manual*)
- use self and peer evaluation techniques
- provide immediate feedback whenever possible
- permit students easy access to records of achievements
- use community partners to assist in student evaluation; e.g., through customer service activities
- display students' work where possible to enhance students' self-esteem and motivation.

SCOPE AND SEQUENCE

The scope and sequence chart provided on the following pages outlines the generic skills (concepts, skills and attitudes) that are developmentally addressed throughout Grades 10, 11 and 12. In recognizing that students differ in the rate at which they acquire generic abilities, the chart is intended to assist teachers in:

- assessing present levels of student performance
- diagnosing particular areas of deficiency
- sequencing instruction in a manner that will suit individual needs and growth patterns.

In using this scope and sequence chart, it should be noted that:

- effort has been made to arrange the concepts, skills and attitudes in a linear sequence according to cognitive demand at each grade level
- the generic skills are **developmental** through Grades 10, 11 and 12 (i.e., the spiral approach). **Students will reinforce and extend their understanding of generic skills developed in Grade 10 through their application in more sophisticated and complex settings at the Grades 11 and 12 levels.** (The *Teacher Resource Manual* and the *Student Workbook* provide for the application of both generic skills and work skills in Grade 10 through the occupational courses.)
- **the generic skills are interdependent and are not meant to be taught in isolation.** Although some skills may be mastered more effectively through discrete instruction, this approach is not advocated as a primary focus of instruction. The occupational course structure permits a more holistic view of instruction through the linking of strategies and skills in the context of each occupational course.
- the generic skills are meant to be taught in the context of each occupational course (see Scope and Sequence Charts, pp. 129-270).

OCCUPATIONAL COMPONENT
GENERIC CONCEPTS, ATTITUDES AND SKILLS

	GRADE 10	GRADE 11	GRADE 12
1.0 INTRODUCTORY SKILLS			
A. Career Awareness Skills	A.1 Recognizes the nature of the occupational cluster A.2 Identifies a variety of occupations in the career cluster A.3 Identifies concepts, skills and attitudes required in occupational cluster A.4 Recognizes potential career ladders A.5 Identifies personal interests	A.1 Identifies the scope of local business/industry A.2 Selects occupation from career cluster A.3 Describes entry-level requirements A.4 Identifies wages and working conditions A.5 Explores personal job interests	A.1 Identifies related businesses/ industries A.2 Identifies personal knowledge and skills A.3 Identifies available jobs/careers in interest areas A.4 Identifies opportunities for further education/training
B. Job Search Skills	B.1 Recognizes the language of the occupational cluster B.2 Recognizes job opportunities B.3 Identifies the job search as a process B.4 Identifies personal career goals B.5 Identifies job requirements – physical – emotional – time – tools B.6 Identifies personal abilities	B.1 Defines business/industry related terms B.2 Locates job opportunities B.3 Lists the sequence of tasks in the job search strategy B.4 Matches personal interests to job requirements B.5 Introduces self to local business/industry operations B.6 Obtains job application forms B.7 Recognizes the purpose of networking B.8 Compares wages and working conditions with other related jobs	B.1 Reviews business/industry related terms B.2 Writes letters of application B.3 Prepares a résumé B.4 Completes application forms B.5 Identifies and contacts references B.6 Practises networking B.7 Practises job interview techniques B.8 Applies for a job B.9 Identifies related unions and associations
C. Human Relations Skills	C.1 Recognizes the meaning of "human relations" C.2 Identifies strategies to enhance peer relationships C.3 Identifies strategies to enhance relationships with others	C.1 Defines "human relations", "personality", and "traits" C.2 Identifies traits in related occupations C.3 Recognizes appropriate workplace behaviour C.4 Demonstrates the ability to relate to others C.5 Demonstrates ability to accept praise/criticism	C.1 Identifies positive traits in self and others C.2 Demonstrates good interpersonal relationships C.3 Demonstrates personal growth in human relationships C.4 Demonstrates ability to deal constructively with conflict C.5 Demonstrates self-esteem building strategies

	GRADE 10	GRADE 11	GRADE 12
1.0 INTRODUCTORY SKILLS (cont'd)			
C. Human Relations Skills (cont'd)		C.6 Identifies areas of personal strength/ personal growth C.7 Recognizes appropriate strategies to enhance personal growth C.8 Identifies causes of conflict/cooperation	C.6 Identifies personnel in local businesses/ industries C.7 Establishes contacts with local businesses/industries C.8 Demonstrates appropriate workplace behaviour C.9 Demonstrates appropriate dress for the workplace
D. Sanitation and Environmental Awareness	D.1 Defines "hygiene" and "sanitation" D.2 Describes "personal hygiene" and "public hygiene" D.3 Identifies related health and sanitation standards D.4 Maintains sanitary work area	D.1 Identifies industry-related sanitation practices D.2 Demonstrates personal hygiene D.3 Describes health and welfare regulations D.4 Demonstrates public hygiene	D.1 Practises personal hygiene D.2 Demonstrates ability to perform public hygiene practices D.3 Demonstrates sanitary work behaviour D.4 Recognizes how infections and diseases are controlled in local businesses/ industries D.5 Describes occupation-related health and safety regulations
E. Safety	E.1 Defines "safety" E.2 Practises fire safety E.3 Recognizes need for safety in the work area	E.1 Demonstrates safe practices E.2 Demonstrates safe use of tools and equipment E.3 Demonstrates safe use of supplies E.4 Identifies unsafe work practices E.5 Participates in a first aid training	E.1 Demonstrates entry-level safety ability E.2 Uses tools, equipment and supplies according to manufacturer's instructions
2.0 ORGANIZATIONAL SKILLS			
A. Work Ethics	A.1 Defines "ethical behaviour" A.2 Recognizes relationship between ethics and human relations A.3 Demonstrates willingness to participate A.4 Demonstrates punctuality and reliability	A.1 Recognizes ethics of related occupations A.2 Demonstrates willingness to practise ethical behaviour A.3 Recognizes the meaning of work A.4 Demonstrates awareness of the needs of others A.5 Demonstrates tolerance and understanding of other cultures A.6 Demonstrates pride in self A.7 Accepts advice	A.1 Describes work ethics of related occupations A.2 Demonstrates ethical behaviour A.3 Demonstrates willingness to work A.4 Demonstrates dependability A.5 Demonstrates concern for others A.6 Demonstrates pride in work A.7 Follows instructions

	GRADE 10	GRADE 11	GRADE 12
2.0 ORGANIZATIONAL SKILLS (cont'd)			
B. Planning and Organization	B.1 Defines "planning" and "organizing" B.2 Identifies components and component sequence of a task	B.1 Develops a basic task plan B.2 Implements a basic task plan B.3 Evaluates the outcome of task plan implementation B.4 Recognizes the meaning of "feedback"	B.1 Develops a complex task plan B.2 Follows task plan B.3 Implements a complex task plan
C. Time Management	C.1 Defines "time management" C.2 Demonstrates dependability	C.1 Identifies time-task relationship C.2 Demonstrates effective time management	C.1 Demonstrates time-task skills C.2 Meets task deadlines
D. Task Management	D.1 Defines "task management" D.2 Demonstrates willingness to learn D.3 Demonstrates interest in the occupational area	D.1 Demonstrates perseverance D.2 Prepares tools and supplies required for the task D.3 Practises positive work habits D.4 Defines the practice of service in the service industries	D.1 Works to specifications D.2 Uses equipment, tools and supplies correctly D.3 Uses correct supplies D.4 Conserves supplies D.5 Cleans work area when task is completed D.6 Demonstrates service
E. Work Standards	E.1 Defines "work standards" E.2 Identifies work standards used in related occupations E.3 Appreciates need for control and quality checks	E.1 Describes work standards used in related occupations E.2 Demonstrates acceptable work standards E.3 Describes the relationship between work standards, service and profit	E.1 Works to specified standards E.2 Demonstrates initiative
3.0 COMMUNICATION SKILLS			
A. Communication Skills	A.1 Defines "communication" A.2 Identifies forms of communication A.3 Recognizes the relationship between verbal and non-verbal communication A.4 Follows verbal instructions A.5 Asks questions A.6 Recognizes occupation related communication techniques	A.1 Recognizes appropriate/inappropriate forms of verbal communication A.2 Recognizes appropriate/inappropriate forms of non-verbal behaviour A.3 Communicates effectively with peers, teachers, and others A.4 Initiates telephone calls A.5 Records telephone information correctly	A.1 Identifies type of communication in local businesses/industries A.2 Demonstrates ability to communicate effectively A.3 Demonstrates effective interview strategies A.4 Uses the telephone correctly
4.0 READING SKILLS			
A. Reading Skills	A.1 Identifies resource centres A.2 Recognizes the variety of resources A.3 Follows written instructions A.4 Locates references	A.1 Uses related occupation terms A.2 Identifies occupation related literature A.3 Obtains access to resources in community resource centres A.4 Interprets and follows written instructions	A.1 Reads and interprets occupation related literature A.2 Reads related health and safety documents A.3 Reads terms of employment documents A.4 Uses resource centres A.5 Follows written instructions specific to occupational area A.6 Deals with conflicting instructions

	GRADE 10	GRADE 11	GRADE 12
5.0 WRITING SKILLS			
A. Writing Skills	A.1 Recognizes the need for basic writing skills A.2 Writes complete sentences A.3 Completes application for SIN	A.1 Describes uses of writing skills in related occupations A.2 Writes in complete sentences and paragraphs A.3 Writes a letter of inquiry A.4 Writes a letter of thanks A.5 Completes a job application form	A.1 Writes in related paragraphs A.2 Writes a résumé A.3 Writes a job description A.4 Submits job application forms
6.0 MATHEMATICAL SKILLS			
A. Mathematical Skills	A.1 Reads numbers to six digits A.2 Adds, subtracts, multiplies and divides A.3 Uses whole numbers, fractions and decimals A.4 Uses metric units of measurement A.5 Uses non-metric units of measurement when necessary	A.1 Uses SI metric units of measurement A.2 Uses imperial and U.S. units of measurement where necessary A.3 Performs basic numeric calculations using whole numbers, fractions and decimals A.4 Uses appropriate strategies to calculate ratio, proportion and percent A.5 Counts money to $1,000.00 A.6 Makes change to $100.00	A.1 Uses metric units of measurement A.2 Uses imperial units of measurement A.3 Solves math-word problems A.4 Applies ratio, proportion and percent in occupational context A.5 Calculates hourly, weekly and monthly income A.6 Calculates costs, sales, commissions, profits A.7 Calculates commissions A.8 Handles cash, cheque and credit transactions
7.0 VISUAL SKILLS			
A. Visual Skills	A.1 Identifies signs and symbols common across occupations A.2 Reads charts and graphs A.3 Shows creative potential (E)	A.1 Interprets occupation related signs and symbols A.2 Interprets charts and graphs and describes their purpose A.3 Creates/designs a visual representation of a project or process (E)	A.1 Responds appropriately to occupation related signs and symbols A.2 Constructs a chart or graph related to an occupational area A.3 Creates an occupation related design or product (E)
8.0 ENTREPRENEURSHIP			
A. Entrepreneurial Awareness	A.1 Defines "entrepreneurship" and "entrepreneur" A.2 Identifies small businesses in the community A.3 Recognizes entrepreneurship as a potential career path	A.1 Recognizes entrepreneurial opportunities A.2 Recognizes common characteristics of small businesses A.3 Identifies advantages and disadvantages of being in business A.4 Recognizes cost of operating a business A.5 Appreciates that not all money earned is profit A.6 Identifies business opportunities related to personal abilities and interests A.7 Identifies abilities required to establish a business A.8 Develops a business plan and operates a small business (E)	A.1 Identifies local entrepreneurs A.2 Identifies traits of entrepreneurs A.3 Identifies steps necessary to start a small business A.4 Initiates a small business (E)

(E = Elective Component)

	GRADE 10	GRADE 11	GRADE 12
9.0 COMMUNITY PARTNERSHIPS			
A. Field Experiences	A.1 Participates in field experiences A.2 Demonstrates satisfactory behaviour during community partnerships	A.1 Orients self to the workplace A.2 Demonstrates appropriate work habits A.3 Uses safe and sanitary practices A.4 Demonstrates pride in self A.5 Demonstrates pride in work performance A.6 Shows respect for others A.7 Respects the property of others	A.1 Prepares for employment through community partnership activities A.2 Demonstrates appropriate work habits A.3 Demonstrates effective human relations techniques in the workplace A.4 Practises safety in the workplace A.5 Demonstrates acceptable verbal and non-verbal communication skills A.6 Practises personal and public hygiene procedures A.7 Demonstrates entry-level competency in tools and equipment usage A.8 Uses supplies correctly A.9 Follows good storage practices A.10 Demonstrates pride in work A.11 Demonstrates willingness to work A.12 Demonstrates respect for others A.13 Follows accepted principles and procedures A.14 Recognizes opportunities for further education/training
10.0 WORK SKILLS	The work skills component for each occupational course consists of both prescribed and elective components. The required components are outlined below. Both the required and elective work skills are stated in the scope and sequence chart provided for each occupational course (pp. 129-270).		
A. Identification	A.1 Identifies job scope A.2 Identifies equipment, tools and supplies	A.1 Lists and describes related jobs A.2 Lists and describes equipment, tools and supplies	A.1 Selects a career path A.2 Recognizes equipment, tools and supplies
B. Equipment, Tools and Supply Usage	B.1 Demonstrates safe use of equipment, tools and supplies B.2 Selects appropriate materials for the job B.3 Uses correct methods to produce a product or to provide a service	B.1 Demonstrates safe use of equipment, tools and supplies	B.1 Uses equipment, tools and supplies correctly
C. Work Standards	C.1 Identifies and works to accepted standards	C.1 Works to accepted standards	C.1 Works to accepted standards
D. Supply Management	D.1 Manages supplies efficiently	D.1 Manages supplies efficiently	D.1 Manages supplies efficiently
E. Work Area Management	E.1 Maintains work area in a safe and sanitary condition	E.1 Maintains work area in a safe and sanitary condition	E.1 Maintains a professional work area

PROGRAM OF STUDIES/ PRESENTATION OF CONTENT

The I.O.P. Occupational Component Profile: 16-Level Courses outlines the CONCEPTS and RELATED SKILLS AND ATTITUDES, i.e., this provides the detail for the top face of the development model. Each concept is a main heading for a family of related attitudes and skills. Together, a concept and its related attitudes and skills form an instructional strand. For example:

07	VISUAL SKILLS	Identifies signs and symbols common across occupations	Reads charts and graphs	Shows creative potential (E)

The related attitudes and skills are arranged in order of priority; however, teachers are encouraged to be flexible when planning for instruction and when integrating the teaching of each related skill:

- into the context of each practical arts learning activity
- into a sequence that best meets the needs of students.

The profile identifies ten concepts and their related attitudes and skills. Concepts 1-9 are categorized as generic; that is, they apply to each and every learning activity. Concept 10, Work Skills, identifies the concepts, skills and attitudes which are transferable between two or more occupational clusters that comprise the senior high occupational component of the Integrated Occupational Program.

The curricular content in this guide is presented in a four-column format.

- Column one, Learning Objectives, outlines the concepts, skills and attitudes that students should be able to demonstrate after successfully completing an occupational course. The shaded portions represent the program of studies.

  The learning objectives are numbered following the sequence indicated in the I.O.P. Occupational Component Profile, Grade 10. These objectives relate to the following concepts:

  1. Introductory Skills
  2. Organizational Skills
  3. Communication Skills
  4. Reading Skills
  5. Writing skills
  6. Mathematical Skills
  7. Viewing Skills
  8. Entrepreneurship
  9. Community Partnerships
  10. Work Skills.

- Column two, Related Life Skills, indicate life skills related to each learning objective. These related life skills establish an immediate need for the use of each skill being studied, and suggest ways of planning relevant learning experiences.

- Column three, Related Applications Across the Curriculum, indicates how cooperative unit and lesson planning will facilitate improved student learning of related concepts, skills and attitudes in core and complementary courses.

- Column four, Suggested Strategies/Activities, identifies a number of teaching strategies and activities that may be used to enhance the teaching learning process. In this context, teachers are encouraged to assess the needs of their students and to use, adapt, complement, supplement the strategies and activities suggested with others that best meet the needs of their students.

OCCUPATIONAL COMPONENT PROFILE: 16-LEVEL COURSES

		1	2	3	4
01	**INTRODUCTORY SKILLS**	*A. CAREER AWARENESS SKILLS* Recognizes the nature of the occupational cluster	Identifies variety of occupations in career cluster	Identifies concepts and skills required in occupational cluster	Recognizes potential career ladders
			5 Identifies personal interests		
		1	2	3	4
		B. JOB SEARCH SKILLS Recognizes language of the occupational cluster	Recognizes job location opportunities	Identifies job search as a process	Identifies personal career goals
			5 Identifies job requirements	6 Identifies personal abilities	
		1	2	3	
		C. HUMAN RELATIONS Recognizes the meaning of "human relations"	Identifies strategies to enhance peer relationships	Identifies strategies to enhance relationships with adults	
		1	2	3	4
		D. SANITATION AND ENVIRONMENTAL AWARENESS Defines "hygiene" and "sanitation"	Defines "personal hygiene" and "public hygiene"	Identifies related health and sanitation standards	Maintains sanitary work area
		1	2	3	
		E. SAFETY Defines "safety"	Practises fire safety	Recognizes need for safety in the workplace	

OCCUPATIONAL COMPONENT PROFILE: 16-LEVEL COURSES (cont'd)

		1	2	3	4
02	**ORGANIZATIONAL SKILLS**	***A. ETHICS*** Defines "ethical behaviour"	Recognizes relationship between ethics and human relations	Demonstrates willingness to participate	Demonstrates punctuality and reliability
		1	2		
		B. PLANNING AND ORGANIZATION Defines "planning" and "organizing"	Identifies components and component-sequence of a task		
		1	2		
		C. TIME MANAGEMENT Defines "time management"	Demonstrates dependability		
		1	2	3	
		D. TASK MANAGEMENT Defines "task management"	Demonstrates willingness to learn	Demonstrates interest in the occupational area	
		1	2	3	
		E. WORK STANDARDS Defines "work standards"	Identifies work standards in related occupations	Appreciates need for control and quality checks	
		1	2	3	4
03	**COMMUNICATION SKILLS**	***A.*** Defines communication	Identifies forms of communication	Recognizes the relationship between verbal and non-verbal communication	Follows verbal instructions
			5	6	
			Asks questions	Recognizes occupation related communication techniques	
		1	2	3	4
04	**READING SKILLS**	***A.*** Identifies resource centres	Recognizes variety of resources	Follows written instructions	Locates references
		1	2	3	
05	**WRITING SKILLS**	***A.*** Recognizes the need for basic writing skills	Writes complete sentences	Completes application for SIN	

OCCUPATIONAL COMPONENT PROFILE: 16-LEVEL COURSES (cont'd)

		1	2	3	4
06	**MATHEMATICAL SKILLS**	*A.* Reads numbers to six digits	Adds, subtracts, multiplies and divides	Uses whole numbers, fractions and decimals	Uses metric units of measurement
		5			
		A. Uses non-metric units of measurement when necessary			
		1	2	3	
07	**VISUAL SKILLS**	*A.* Identifies signs and symbols common across occupations	Reads charts and graphs	Shows creative potential (E)	
		1	2	3	
08	**ENTREPRENEURSHIP**	*A.* Defines "entrepreneurship" and "entrepreneur"	Identifies small businesses in the community	Recognizes entrepreneurship as a potential career path	
		1	2		
09	**COMMUNITY PARTNERSHIPS**	*A. FIELD EXPERIENCES* Participates in field experiences	Demonstrates satisfactory behaviour during community partnership		
		1	2		
10	**WORK SKILLS**	*A. IDENTIFICATION* Identifies job scope	Identifies equipment, tools and supplies		
		1	2	3	
		B. EQUIPMENT, TOOLS AND SUPPLY USAGE Demonstrates safe use of equipment, tools and supplies	Selects appropriate materials for the job	Uses correct methods to produce a product or to provide a service	
		1			
		C. WORK STANDARDS Identifies and works to accepted standards			
		1			
		D. SUPPLY MANAGEMENT Manages supplies efficiently			
		1			
		E. WORK AREA MANAGEMENT Maintains work area in a safe and sanitary condition			

The scope and sequence charts provided in this document (pp. 129- 270) outline the required and elective work skills for each occupational course.

(E = Elective Component)

INTRODUCTORY SKILLS – CAREER AWARENESS; JOB SEARCH; HUMAN RELATIONS; SANITATION; SAFETY

CONCEPTS:

- Understands the difference between a job and a career.
- Understands the purpose of categorizing occupations into clusters.
- Recognizes job search as a process.
- Identifies appropriate workplace behaviour.
- Identifies areas of personal interest and strength.
- Recognizes basic health and safety practices.

ATTITUDES:

- Recognizes the need to make a commitment to enhancing personal growth in social, emotional, physical, intellectual and skill areas.
- Begins to appreciate the value of continuing education as a part of the lifelong learning process.
- Appreciates the need for appropriate occupational health and safety practices.

SKILLS:

The skills related to **INTRODUCTORY SKILLS** are outlined in the Learning Objectives listed in column one.

COURSE: OCCUPATIONAL COMPONENT (I.O.P. Grade 10)
INTRODUCTORY SKILLS (01)

LEARNING OBJECTIVES	Related Life Skills

A. CAREER AWARENESS SKILLS

A.1 Recognizes the nature of the occupational cluster:

- geographic location
- trends
- potential markets
- labour intensity
- working environment
- wage range
- entrepreneurial opportunities.

A.2 Identifies variety of occupations in the career cluster.

A.3 Identifies the concepts, skills and attitudes required in the occupational cluster.

Students locate and identify characteristics of occupational clusters and related occupational courses.

AGRIBUSINESS AND NATURAL RESOURCES

- Agribusiness
  - dairy
  - crops
  - cattle
  - processing
  - mechanical services
- Forestry
- Mining
- Oil and gas.

BUSINESS AND OFFICE OPERATIONS

- Office assistant
- General clerk
- Mail clerk
- File clerk
- Receptionist
- Salesperson
  - direct
  - telephone
  - retail
  - wholesale
- Marketing assistant
- Telephonist
- Lighting assistant.

CONSTRUCTION AND FABRICATION

- Helpers in trade areas:
  - carpentry
  - plumbing
  - flooring
  - heating
  - concrete
  - electrical
  - bricklaying
  - roofing
  - painting and decorating
  - floorcovering
  - glazing.

Related Applications Across the Curriculum

General

Career awareness is presented within every integrated occupational course. Commencing in Grades 8 and 9, students develop an **awareness of** potential career fields. In subsequent years, this awareness is further developed through a process of career **exploration** in Grade 10, career **orientation** in Grade 11, and **preparation** for entry into an occupational area in Grade 12.

English 16

Students examine personal values and attitudes in the theme "World of Work".

Mathematics 16

Students are encouraged to interpret career related information from tables, charts and graphs.

Social Studies 16

The need for planning as part of the career decision-making process is reinforced and students are assisted to identify geographic and demographic data related to business and industry. Students are encouraged to complete an interest inventory and to distinguish between a job and a career.

Suggested Strategies/Activities

Have students write an inventory of their personal interests and strengths.

Use Resource 2:

The Easy-To-Read Career Planning Guide (pp. 7-11) in the *Teacher Resource Manual*. Assist students to identify and evaluate their interests, aptitudes and career goals.

Community Partnerships

Establish community partnerships for both in-school and field experiences to provide students with "real world" information concerning job opportunities and entry level knowledge, skill and attitude requirements.

Community partners may include:

- guidance counsellors
- business industry owners/managers
- union representatives
- employees

Strategies may involve:

- talks and field trips
- job shadowing
- visits to/by school graduates in related occupations. Strategies should assist students to relate present tasks to future career goals.

Have students identify and use resource centres and occupation-related resource material:

- business magazines
- trade journals
- newspapers
- Yellow Pages Directory.

LEARNING OBJECTIVES	Related Life Skills
A.4 Recognizes potential career ladders.	CREATIVE ARTS • Equipment operator • Photographer • Printer's helper • Designer and layout artist • Cottage crafts person • Picture framer • Audio-visual assistant • Stagehand • Television camera helper. PERSONAL AND PUBLIC SERVICES / TOURISM AND HOSPITALITY • Hair care worker • Esthetologist • Child care assistant • Health care assistant • Fabric care and cleaning • Food service workers – bus person – waiter – waitress – maitre d' • Food production worker – cook – cook's helper – fast food preparer • Maintenance worker • Chambermaid • Houseman • Hotel/motel desk clerk. Identifies steps up the career ladder made by father, mother, brother, sister, friend, etc.

Related Applications Across the Curriculum	Suggested Strategies/Activities
English 16 Students examine the world of advertising and are encouraged to identify job opportunities in the classified advertisement sections of newspapers and other publications. Science 16 Relates personal health factors to lifestyle and work environment. Develops an understanding of thermal, mechanical, electrical and fluid technologies, appreciating their effect on occupational opportunities and lifestyle. Social Studies 16 Students identify job advancement ladders and outline the general criteria used for advancement, including seniority, effort, education, skills, productivity and initiative.	Use personal and other examples of career choice and planning. Indicate, as appropriate, the relationship between generic skills, transferable skills, and more job specific work skills. Brainstorm to identify factors that relate to career-choice. Discuss findings and ways in which you and others deal with career selection and change: • decision making • indecision • unrealistic decisions. Stress that career awareness and job selection is an ongoing process, possibly a lifelong process. Similarly, decisions based on present interests, abilities and job opportunities will change as students mature and gain more knowledge and skills, and as the national, provincial, regional and local economies change over time. (See *Teacher Resource Manual*, Suggested Teaching Strategies "Brainstorming".)

LEARNING OBJECTIVES	Related Life Skills
A.5 Identifies personal interests.	TRANSPORTATION • Automotives mechanic's helper • Gas station worker • Service station salesperson • Car washer • Warehouse worker • Parts person • Stockkeeper • Inventory clerk Hobbies, part-time job, and other out-of-school activities.

Related Applications Across the Curriculum	Suggested Strategies/Activities
Social Studies 16 Students examine interest inventory tests and personal test results for possible career choices.	Have students: • identify and list personal interests, hobbies and strengths • match personal interests, hobbies and strengths with characteristics of occupational area and specific jobs within the area. Where available, use CHOICES or other computerized career-decision aids. Both individual and group strategies are beneficial. Use interest and aptitude inventories to assist students to focus on their strengths and their goals. Use brainstorming and discussion techniques to provide the group dynamics that stimulate individual thinking and self-identity processes. Community Partnerships Host a career day as a community partnership activity. Invite representatives from: • local businesses/industries • Career Development and Employment • labour unions • employment agencies. Involve the school counsellor, and representatives from a local Career Development and Employment office in discussions with students.

LEARNING OBJECTIVES	Related Life Skills
B. JOB SEARCH SKILLS	
B.1 Recognizes the language of the occupational cluster: • unskilled • entry level • apprentice • skilled.	Knows the abilities required at various levels of an occupational area.
B.2 Recognizes job opportunities.	Reads the job advertisements in local newspapers and related journals.
B.3 Identifies the job search as a process.	Uses job search strategies to engage in search for part-time employment.
B.4 Identifies personal career goals.	• in occupational pattern • in occupational area • volunteer work • access Hire-a-Student program • access Work Orientation Workshop (WOW) program.
B.5 Identifies job requirements. • physical • emotional • time • tools	
B.6 Identifies personal abilities.	Extends the use of these strategies to access instruction and/or participation in: • hobbies • community work • sports • church groups

Related Applications Across the Curriculum

General

Job search skills include the ability to plan and make decisions. Both of these abilities are addressed throughout the program.

English 16

Students are encouraged to develop strategies for expanding their word familiarity, especially in the context of job requirements and descriptions.

Mathematics 16/Science 16

Both mathematics and science foster the development of sequenced thinking and decision making that may be related to all occupational areas.

Social Studies 16

Students are encouraged to identify traditional, new and potential jobs within the community, to recognize the physical and emotional demands of different jobs, and to examine techniques that may be used for personal upgrading.

Suggested Strategies/Activities

Brainstorm with students the strategies used to find and secure a part-time job. Discuss pros and cons of each strategy.

Have students compile a job search strategy.

Lists
- interests
- abilities
- work goals
- work requirements.

Matches
- interests and abilities to work goals and requirements.

Selects
- job
- job location.

Searches
- letters of application
- personal contacts
- advertisements.

Interviews
- prepares for interview
- goes for job interview.

Acceptance
- obtains a job
- retains the job.

Develop a flow chart to show the sequence of steps in the job search process. (See *Teacher Resource Manual*, Suggested Teaching Strategies, "Flow Charting: A Process Analysis Strategy".)

Have students extend the inventory from the previous unit to include:

- matching their interests and abilities to a job
- selecting an occupation area or a specific job
- role play techniques of letting others know that you are looking for a job.

Community Partnerships

Encourage students to use the full job search process to seek part-time employment, including volunteer work.

LEARNING OBJECTIVES	Related Life Skills
C. HUMAN RELATIONS SKILLS	
C.1 Recognizes the meaning of "human relations": • significant others • group dynamics • interpersonal skills.	Practises effective human relations in the context of: • family • teacher-pupil • employee-employer • peers • student-adult • participation in community – service organization – church group – volunteer group • classroom activities • social activities.
C.2 Identifies strategies to enhance peer relationships: • develops positive work environments • accepts and gives constructive criticism • works cooperatively with peers.	
C.3 Identifies strategies to enhance relationships with others.	

Related Applications Across the Curriculum	Suggested Strategies/Activities
	Identify and use community partners to provide job search information. Partners may include representatives from: • local business and industry • Alberta Career Development and Employment • school guidance counsellors • school and program graduates • volunteer agencies • parents. Encourage an integrated approach to improve students' job-search skills: • work with other subject area teachers in unit and lesson planning • use a panel composed of community partners and a panel of integrated students to discuss job search strategies and skills, and short- and long-range job opportunities in various occupations and occupational clusters • organize a career fair. Encourage students to be active participants in the planning and implementation processes.
General The development of good human relations skills has applications throughout the Integrated Occupational Program. English 16 English 16 provides an especially excellent area in which to develop related skills for both discussion and metacommunication. CALM The concept and the skills related to human relations building are reinforced in CALM.	The ability to relate well to adults and peers requires the opportunity for practice. Students should, therefore, be engaged in conversation whenever possible, and should be provided with opportunities to talk with their peers and adults. Creating Good Relationships: Divide students into small groups. Each group brainstorms to find: • the different types of work relationships that they are or have been involved in • the different types of non-work relationships that they are involved in. Allow groups 5-10 minutes to brainstorm and elect a recorder. Each group's recorder presents to the class a summary of relationships identified. Lead a discussion on: • types of work relationships • types of non-work relationships.
Social Studies 16 Students define and relate the meaning of the following concepts to their roles as citizens in a democratic society: • rights • privileges • responsibilities.	

LEARNING OBJECTIVES	Related Life Skills

C. HUMAN RELATIONS SKILLS (cont'd)

Related Applications Across the Curriculum	Suggested Strategies/Activities

Identifying the Need for Good Relationships: Help students identify:

- benefits of good relationships
- need for good relationships in the workplace
- the type of behaviour that will contribute to good human relations
- the type of behaviour that will not contribute to good human relations.

The ability to get along with one's peers, family members, teachers, fellow workers and employers is an essential life skill. Many of the occupational patterns and areas require workers to demonstrate exceptionally high levels of human relations skills; e.g.,

- tourism and hospitality
- personal and public services
- transportation.

In most jobs, the ability to relate well to others, fellow workers and employer, is considered to be an important skill at all levels of employment.

Students should develop confidence in:

- their ability to communicate ideas, and
- their willingness to listen to the ideas of others.

Ongoing human relations development, including tolerance of others, can be facilitated through:

- peer evaluation
- discussion
- brainstorming.

(See *Teacher Resource Manual*, Suggested Teaching Strategies "SPOT".)

Identifying Significant Others: Have students identify person(s) they most admire, and explain why; e.g.,

- teacher
- parent
- sports figure
- actor, actress.

LEARNING OBJECTIVES	Related Life Skills

C. HUMAN RELATIONS SKILLS (cont'd).

Related Applications Across the Curriculum	Suggested Strategies/Activities
	Discuss the qualities and characteristics that contribute to the role of a "significant other".
	Employer-Employee Relations: Discuss the respective roles and responsibilities of the employer and the employee with regard to a related job.
	Role play employer/employee in the context of:
	• asking for a raise • acknowledging good work.
	Discuss: "How can human relations between an employee and an employer be improved?"
	Community Partnerships
	Use community partners as participants in small group and class discussions including representatives from:
	• labour unions • large business • small business • employee staff association • parents.
	Have students continuously attempt to build good relationships when on field experiences, e.g., write letters of appreciation after participating in:
	• field trips • work study • job shadowing.

LEARNING OBJECTIVES	Related Life Skills
D. SANITATION AND ENVIRONMENTAL AWARENESS	
D.1 Defines "hygiene" and "sanitation".	• Daily hygiene program
D.2 Describes "personal hygiene" and "public hygiene": • disease control • health control • controlling pollution • waste management.	• Sanitation practices in a home • School sanitation practices • Smoking regulations • Public health/school nurse's role in disease and health control.

Related Applications Across the Curriculum	Suggested Strategies/Activities
Science 16 Students monitor their circulatory, respiratory and digestive systems for the purpose of acquiring and maintaining a healthy lifestyle. Personal diets are analyzed in order to identify the nutritional value of foods eaten. The importance of physical exercise and the impact of medical technology are similarly addressed as being related to strategies used to maximize and prolong physical health. Ecological issues are also addressed. Social Studies 16 Students examine social control strategies including the reasons for laws and regulations.	Have students discuss the procedures that need to be taken to maintain a sanitary environment: e.g., • at home • in school • in a food lab • in a hair care/esthetology salon • in a day-care centre • meat processing plant. Personal Hygiene and Personal Relationships Ask students to relate good personal hygiene to good personal relationships. Sanitary practices: • self • community • home • workplace. Personal hygiene practices: • body care • health care • clothes care • regular exercise • regular medical, dental checks • balanced diet. Discuss the importance of public hygiene practices in the community, the home, and the workplace. Community • pollution controls – noise – air • public health units – inoculations – vaccinations – disease control • street cleaning • public toilets. Home • infection control • refrigeration • cleaning, washing, sterilizing. Workplace • dress regulations • sanitary control • ventilation • disease control • health regulations.

LEARNING OBJECTIVES	Related Life Skills
D.3 Identifies related health and sanitation standards.	Each occupational area in Alberta is governed by the Employment Standards Code and the Workers' Compensation Act. Many occupations and workplaces are also governed by various sections of the Public Health Act and other legislation related to occupational health and safety. Students should recognize their right to a safe and sanitary environment and their responsibility to ensure that their behaviour in the home, school, community, and workplace contributes to the maintenance of safe and sanitary conditions.
D.4 Maintains a sanitary work area.	Personalizes work area with: • name card • related posters • information sheets Takes pride in maintaining high standards of sanitation of self and work area.

Related Applications Across the Curriculum	Suggested Strategies/Activities
	Community Partnerships Invite health and sanitation workers to speak with students: • school nurse • medical doctor • sanitary engineer Visit work sites related to occupational course/cluster in which strict hygiene and sanitation is practised; e.g., • milk processing plant • restaurant/cafeteria • hospital • beauty salon • day-care centre Ensure that relevant sections of the Employment Standards Code and the Alberta Public Health Act are displayed and that students are aware of their rights and their responsibilities in maintaining the health and safety of themselves and their fellow workers in the school and the workplace. (See "Student Workbook" for occupation related materials.) (See *Teacher Resource Manual*, Introductory Skills: "Sanitation and the Environment".) Invite community partners to speak with the class: • Occupational Health and Safety officials • Workers' Compensation Board officials. Where appropriate, describe and demonstrate effects of an uncontrolled environment in the home and in the workplace. Related demonstrations may include: • molding foodstuff • rotting wood • peeling paint • rusting • crop infections • cattle diseases • spread of infections.

LEARNING OBJECTIVES	Related Life Skills
E. SAFETY	
E.1 Defines "safety".	Safety in the home • kitchen • fireplace • garage Safety in school • fire alarm • fire hoses Safety in the workplace
E.2 Practises fire safety. • prevention • evacuation • firefighting.	Practises fire prevention at home, in school, at the worksite, and at campsites. Abides by worksite fire regulations. Respects "No Smoking" areas in the workplace and in other public places.

Related Applications Across the Curriculum	Suggested Strategies/Activities

General

Safety is both a concept and a collection of skills addressed throughout the Integrated Occupational Program. Students should be encouraged to develop a sense of personal responsibility to abide by safety regulations and to use safe practices when using tools, equipment, chemicals, foodstuffs, etc., in school, at home, and in the community.

Science 16

The essential elements of combustion are studied. Students are required to describe appropriate methods of controlling fires according to various circumstances, and to identify safe procedures for handling and storing hazardous materials.

This concept and its related skills is covered in detail in each Work Skills Profile and in related student workbooks.

Review safety procedures taught in Grades 8 and 9.

- knows safety rules and regulations
- identifies unsafe conditions
- uses personal safety devices
- recognizes consequences of unsafe acts
- performs pre-use checks
- uses safe operating procedures
- selects the right tool for the job
- reacts to fire hazards
- identifies hazard symbols
- uses chemicals and fuels with care
- knows basic first aid procedures
- is aware of safety features and devices on equipment and in facilities.

In each occupational course, emphasize:

- safe use of:
  - tools
  - equipment
  - supplies
  - facilities
  - protective clothing
- safe practice of:
  - procedures
  - techniques
  - tasks
- safe observance of:
  - Alberta's Occupational Health and Safety regulations
- the consequences of unsafe acts and behaviours
- how to prevent fires and how to fight different types of fires
- use and operate correct extinguisher
- the importance of checking the operating condition of smoke detector alarms at home and on the job site.

LEARNING OBJECTIVES	Related Life Skills
E.3 Recognizes need for safety in the work area.	Reports unsafe conditions in: • school • community • tools • equipment • supply management • supply storage. Knows evacuation routes: • home • school • workplace. Treats simple injuries: • minor cuts • minor burns

Related Applications Across the Curriculum	Suggested Strategies/Activities
	Identify and discuss with students the emergency response telephone system and numbers. (The numbers are found on the inside front cover of most telephone directories.) Ask students to observe and record the potential dangers of having an unsupervised fire in or near an open air worksite; e.g., • forest • mine • oil and gas well • agricultural setting. Refer to *Teacher Resource Manual* (Appendix 2) for further safety guidelines, strategies and activities. Community Partnerships Establish community partnerships with St. John Ambulance, Red Cross, local fire station, and school or district nurse, to facilitate: • in-school presentations • field trips. Have students identify and locate emergency services available in or available to the community. Organize and have students participate in a certificate course in basic first aid given by certified instructors. (Students who already possess a first aid certificate may be enrolled in a higher level course.) (See *Teacher Resource Manual*, "Introductory Skills" for additional suggested student activities and community partnerships.)

ORGANIZATIONAL SKILLS: ETHICS, ORGANIZATION, TIME AND TASK MANAGEMENT, STANDARDS

CONCEPTS:

- Identifies the relationship between ethics and behaviour.
- Recognizes the basic principles of time and task management.
- Recognizes the importance of task analysis, problem-solving and decision-making skills.
- Identifies the occupational standards that help to regulate and control production.

ATTITUDES:

- Begins to develop an appreciation for time and task management.
- Displays tolerance and understanding toward others.
- Beings to appreciate the value of performance and production standards.
- Displays a willingness to use simple problem-solving and decision-making strategies.

SKILLS:

The skills related to **ORGANIZATIONAL SKILLS** are outlined in the Learning Objectives in column one.

COURSE: OCCUPATIONAL COMPONENT (I.O.P. Grade 10)
ORGANIZATIONAL SKILLS (02)

LEARNING OBJECTIVES	Related Life Skills
A. WORK ETHICS	
A.1 Defines "ethical behaviour"	Shows respect for self and others. Recognizes rights of others. Respects individual differences. Demonstrates honesty and truthfulness. Respects members of both sexes.
A.2 Recognizes relationship between ethics and human relations.	Makes complaints according to correct protocol. Demonstrates a positive work ethic. Shows tolerance, forgiveness and kindness. Demonstrates loyalty. Works as a member of: • a team • a group • a class.
A.3 Demonstrates willingness to participate.	Takes responsibility for own actions. Shows initiative and leadership in specific situations. Comes to class on time.
A.4 Demonstrates punctuality and reliability.	Attends regularly. Fulfils part-time work obligations.

Related Applications Across the Curriculum	Suggested Strategies/Activities
General A broad spectrum of organizational skills are modelled throughout the Integrated Occupational Program. In core subject areas, these skills are addressed through the methodology rather than as discrete skills for focused instruction. CALM Liaise with CALM teacher(s). The following characteristics are addressed in all occupational courses and are reinforced throughout the CALM curriculum: • ethical and moral characteristics • intellectual characteristics • social/personal characteristics.	Discuss alternative methods of resolving employer-employee conflicts. Use a current case study from local newspaper and discuss the conflict situation indicated. Role play employer-employee conflicts. Identify and read code of ethics (where available) for related occupations. Have students brainstorm and formulate a code of ethics for: • students • agricultural workers • personal and public service workers • maintenance and hospitality workers • workers in other occupational areas. Provide students with statements regarding expectations/requirements of course relating to: • attendance • punctuality • consequences. Alternatively, have students brainstorm and negotiate: • rules for running an orderly shop • consequences for non-compliance. Note: Rules should be simple, few in number, and be reached by consensus among class members. "Ownership" of rules and consequences tends to promote and facilitate acceptance and group pressure to conform. Community Partnerships Invite community partners to class for discussion of reasons for employee conflicts and terminations: • personnel managers • restaurant managers • store security staff • police officers • family counsellors • caseworkers.

LEARNING OBJECTIVES	Related Life Skills
B. PLANNING AND ORGANIZATION	
B.1 Defines "planning" and "organizing".	Uses appropriate job performance strategies:
B.2 Identifies components and component sequence of a task.	• identifies jobs to be done • identifies tools, supplies, equipment and time needed to get job done • prepares necessary tools, supplies and equipment prior to starting job • recognizes roles played by people occupying different positions in an organization • breaks jobs down into manageable tasks • performs tasks in logical order.

Related Applications Across the Curriculum

General

As with many of the other generic skills, the knowledge, skills and attitudes that students need to learn in order to perform satisfactorily in home, school, and community roles, can be modelled in all courses throughout the school.

Consistent and regular reinforcement in all subject areas of appropriate organizational skills, including ethical behaviour and time and task management strategies, will tend to encourage students to accept similar expectations of themselves in other situations and contexts.

Science 16

Uses the process skills in enquiry and investigation, e.g.,

- defines problems and formulates questions
- plans procedures
- performs experiments

Suggested Strategies/Activities

Discuss: "Why do businesses and industries have an organizational structure?"

Have students appoint/elect a foreman or manager and reach consensus on the duties and responsibilities that should be performed.

Following the students' use of a number of job sheets within the student's workbook, have students:

- select a specific task related to one of the occupational areas and identify and record the equipment, tools and supplies that will be needed, and the approximate time for completing the job
- prepare a checklist of the steps that need to be done in order to complete the task procedure
- discuss the best sequence for the identified tasks, and create flow charts based on discussion
- complete the task and use the sequenced checklist to evaluate each step of the procedure as well as the completed project.

Community Partnerships

Invite representatives from business and industry to outline the organizational skills that employers expect new employees to demonstrate:

- discuss these requirements
- have students identify their present organizational skills
- discuss how, when and why additional organizational skills will be developed.

LEARNING OBJECTIVES	Related Life Skills

C. TIME MANAGEMENT

C.1 Defines "time management"

- works consistently
- uses time wisely
- orders tasks.

Allows adequate time to complete homework and in-school assignments.

Recognizes that in the world of business "time is money".

Makes appointments to reduce waiting time; e.g., car repairs, beauty salon, barber shop.

Arranges tasks in order of priority.

Looks for shortcuts.

Recognizes seasonal/time related tasks in each occupational course; e.g.,

- Agricultural Production
  - seeding
  - harvesting
- Horticulture
  - fertilizing
  - watering
- Crafts and Arts
  - Easter eggs
  - Christmas decorations
- Business and Office Services
  - monthly statements
  - year-end accounting
- Natural Resources
  - firefighting
  - logging season
  - drilling season
- Personal and Public Services
  - weekend hair and facial care
  - child/adult birthday celebrations
  - seasonal clothes alterations and cleaning
- Tourism and Hospitality
  - seasonal catering
  - birthday cakes
  - Easter eggs
  - Christmas cakes
- Transportation
  - books car service appointments correctly.

Related Applications Across the Curriculum	Suggested Strategies/Activities
General Attendance and tardiness guidelines should be indicated and enforced in all subject areas. Mathematics 16 Organizes personal time and develops schedules for completing tasks. Estimates passage of time over both active and passive periods. Records start and finish time for work, determining hours and minutes worked.	Time and efficiency practices should be incorporated into each occupational course so that students can experience and practise standard operating procedures in respect to time control and time on task. Encourage students to: • keep a log book • reduce unnecessary motions and efforts • analyze all work habits • maintain quality and safety while attempting to decrease job completion time • work consistently. Community Partnerships Use observations gained from field experiences for in-school discussions on the importance of time management in various occupations and job settings. Invite community partners to participate in these discussions: • farmer • well-driller • maitre d' hotel • auto mechanic • child care worker • health care worker • courier. Discussion topics may include: • time management and piecework • the artist as a business person • the advantages of working on commission • time management for entrepreneurs.

LEARNING OBJECTIVES	Related Life Skills
	Records upcoming appointments. Is aware of the value of others' time. Completes tasks on time. Keeps appointments. Sets examples to others by being on time. Takes breaks for allotted time.
C.2 Demonstrates dependability. • follows instructions • shows initiative • demonstrates concern for others.	

Related Applications Across the Curriculum	Suggested Strategies/Activities

To motivate students to improve both the quality of work and the time taken to produce it, maintain records of jobs performed by each student and the time taken for satisfactory completion of each. Strategies include:

- maintaining a wall chart that shows job time codes for each student
- having each student maintain a log that shows jobs completed and time taken for each job

Use various systems and schedules of reinforcement:

- praise
- awards
- 100% marks
- "student of the week"

(See *Teacher Resource Manual*, Suggested Teaching Strategies: "Reinforcing the Positive".)

Community Partnerships

Invite representatives from business and industry to discuss the relationship between employee dependability and productivity in the workplace.

LEARNING OBJECTIVES	Related Life Skills
D. TASK MANAGEMENT	
D.1 Defines "task management" • meets acceptable work standards • is willing to correct poor work • strives to improve quality of work • lengthens attention span	Demonstrates self-discipline Stays on task until job is completed Assumes "ownership" for performing a quality job and/or producing a quality product Works with minimum supervision Knows own capabilities and takes on jobs that can be • performed with present levels of knowledge and skill • challenging Works well with • tools of the trade • fellow workers • customers • salespersons • service persons
D.2 Demonstrates willingness to learn.	Subscribes to and reads trade journals and/or uses resource centres to gain more information about occupations of interest. Seeks and obtains part-time employment in related occupations.
D.3 Demonstrates interest in the occupational area. • shows initiative • asks questions.	

Related Applications Across the Curriculum	Suggested Strategies/Activities
General Recognition and reinforcement of position/task management behaviours is an accepted teaching strategy in all subject areas. An improved level of self-esteem gained in one subject area for effective use of task management strategies may encourage similar positive task management behaviours to be demonstrated in other areas.	The usual way to monitor student progress in task management is to observe and note the actual performance over time and the attitude with which tasks are performed. • At intervals, assign one student to observe one or two others at work. Give the student "efficiency expert" a stopwatch and have the student record time spent on task and time spent elsewhere. A simple report of findings in terms of percentage of time spent on task as opposed to time spent on distractions, will surprise most people involved. • While the other students may be aware of the onlooker and the observations being made, it is unlikely that the "halo" effect will have a bearing on the results. If it does, the instructor can use the improvement to start a discussion on whether it is wise to work hard only when one is being watched, or whether it is a good practice to work diligently at all times. • Point out to students that they are free to take short breaks away from their task. However, these breaks should be scheduled and of reasonable duration. • Discuss "Your Attention Span" and "Self-Rewarding Techniques" to raise the consciousness of the class in regard to time on task.
Social Studies 16 Incidental and formal learning opportunities are examined in the context of on-the-job learning.	Encourage "Positive Self-Talk" and use praise and other reward strategies to motivate students to higher levels of productivity and interest, including: • bulletin board displays of student work • certificates of recognition for work well done or for parts of the program completed • verbal praise and recognition for jobs well done • student of the week or month awards • occupation area awards at school awards ceremonies. Teach students the value of self-recognition of work done, problems solved, and decisions made. (See *Teacher Resource Manual*, Suggested Teaching Strategies: "Positive Self-Talk: A Self-Esteem Building Strategy".) Community Partnerships Invite community partners to the class to provide students with confirmation of the need for task management skills in the workplace.

LEARNING OBJECTIVES	Related Life Skills

E. WORK STANDARDS

E.1 Defines "work standards"

- quality control
- cost control
- pride in work

Situations frequently arise in real life wherein the student is required to evaluate work completed and determine whether the quality of the work is adequate. A student who displays an appropriate level of pride in work completed will set higher standards for that work than would a student who feels less pride in accomplishments.

E.2 Identifies work standards used in related occupations.

E.3 Appreciates need for control and quality checks:

- product quality
- workmanship
- service
- sales
- after-sales service.

By way of example, a student may be asked by parents to clean the house. There are varying degrees of cleanliness. Depending upon the level of pride the student shows in the work, it will be either thoroughly clean, or given once-over treatment. Judgment enters the situation as the student attempts to determine the level of performance expected by parents, teacher and employers. Having determined what is expected, the student will then perform the task to standards set internally, and take pride in a job well done. This same characteristic of displaying pride in work will appear in such life situations as:

- carrying out tasks in a field experience project
- going above and beyond expectations for school assignments
- maintaining a clean and organized work area
- carrying out hobby activities to meet high standards set for oneself
- taking pride in appearance
- striving to excel in any task undertaken, whether at home, at school, or in the workplace.

Related Applications Across the Curriculum	Suggested Strategies/Activities

General

On the first day of class, distribute a course outline and an information sheet that indicates teacher expectations for students' attendance, performance, etc. This handout may also contain information about student evaluation.

Encourage improved student work standards by providing students with clear statements (written and verbal) of what standards are required in each course and how each component of the work standard is to be measured and marked.

Consistency in the use of work standards as an evaluative dimension across the curricula will tend to reinforce students' recognition of the need to produce a piece of work to acceptable standards.

In developing the practices of quality control and the maintenance of work standards, it is useful for students to note that these practices relate to the process as well as to the finished product.

Process quality includes:

- keeping working tools and materials in an orderly manner with "a place for everything and everything in its place"
- maintaining a clean, neat work space to look professional, improve safety and increase efficiency
- working according to generally accepted rules
  - Workers' Compensation Board
  - Employment Standards Act
  - Occupational Health and Safety Guidelines
  - Union contracts (where applicable).

Product quality includes:

- meeting job specifications
- consumer acceptance
- product appearance
- product presentation
- type and level of salesmanship
- after-sales service
- marketing strategies
- customer satisfaction.

Community Partnerships

Provide students with the knowledge and "feel" for what different industries, businesses and craftsmen describe as "a quality product" by:

- inviting craftsmen and artists to demonstrate their techniques and art forms
- field experiences in related work sites.

Have students evaluate their own work and the work of their peers. Ask students questions related to their work; e.g.,

- "Are you pleased with your efforts?"
- "What do you like best about your project?"
- "How would you improve the service next time?"

(See *Teacher Resource Manual*, "Organizational Skills" for additional suggested student activities and community partnerships.)

COMMUNICATION

CONCEPTS:

- Develops an understanding of the different forms of communication:
  - verbal
  - non-verbal
  - symbolic.
- Recognizes good and poor communication techniques.
- Understands the importance of verbal and non-verbal communication.

ATTITUDES:

- Begins to appreciate how the diversity of the forms of communication impact on performance and productivity.
- Recognizes the need to use appropriate forms and styles of communication in the workplace.
- Appreciates the importance of asking and answering questions and following instructions.
- Appreciates how the form of communication can impact on human relationships.

SKILLS:

The skills related to **COMMUNICATION** are outlined in the Learning Objectives in column one.

COURSE: OCCUPATIONAL COMPONENT (I.O.P. Grade 10)
COMMUNICATION SKILLS (03)

LEARNING OBJECTIVES	Related Life Skills
A. COMMUNICATION SKILLS	
A.1 Defines "communication"	Observes different types of communication:
• the role of: – sender – receiver – understanding.	• verbal and non-verbal • hand or whistle signals on a construction site • road hazard signs • dangerous goods symbols, e.g., for chemicals, poisons.
A.2 Identifies forms of communication:	Uses non-verbal signals to communicate above the sound of machinery.
• listening	Uses hand signals to direct traffic.
• viewing	Gives directions and assistance to peers.
• reading	Reads and interprets instructions.
• writing	Watches television selectively.
• speaking	Listens to favourite radio station.
• electronic media	Appreciates the role of advertising in society.
• newspapers	Reads a local newspaper and identifies:
• journals	• news stories
• signs	• classified advertisements
• signals	• display advertisements.

Related Applications Across the Curriculum	Suggested Strategies/Activities
General Development of communication skills, speaking, reading, writing and viewing, is integrated into the teaching and learning process in all subject areas in the Integrated Occupational Program.	The ability to "read" and interpret all forms of communication is an essential component of doing a job safely and doing it correctly. Use a variety of strategies to encourage students to communicate effectively. (See *Teacher Resource Manual*, "Suggested Teaching Strategies".)
English 16 These skills are identified as discrete skills and are taught in the context of a number of content areas.	
Mathematics 16, Science 16 and **Social Studies 16,** each contain a body of information that is stored in various types of resources. Communication skills, including the interpreting of information provided in table, chart and graph formats, are further developed in these subject areas.	Ask students to identify and list forms of communication used in various occupations. AGRIBUSINESS • Farm journals • Seed catalogues BUSINESS AND OFFICE OPERATIONS • Business journals • Newspapers CONSTRUCTION AND FABRICATION • Building plans • Supply catalogues CREATIVE ARTS • Graphics journals • Art exhibitions NATURAL RESOURCES • Oil and gas journals • Newspapers PERSONAL AND PUBLIC SERVICES • Hair and beauty journals • Child and health care manuals TOURISM AND HOSPITALITY • Yellow Pages Directory • Cookbooks TRANSPORTATION • Service manuals • Union publications

LEARNING OBJECTIVES	Related Life Skills
A.3 Recognizes the relationship between verbal and non-verbal communication: • verbal – speaks clearly – uses correct greetings – is polite • non-verbal – displays positive body language – shakes hands if appropriate • understands, uses and accepts verbal and non-verbal combination messages.	On a part-time job, or on field experience activities, the student will use and accept a variety of types and forms of communication. These same skills apply in meeting and dealing with peers and adults in all situations. The reaction of others to students will provide clear indications of whether individual students have employed socially and/or occupationally acceptable communication behaviours.
A.4 Follows verbal instructions.	The ability to follow instructions permeates life experiences. While performing part-time work or involved in field experiences, students will need to follow instructions, both verbal and non-verbal. • Asks directions • Seeks clarification • Wants more information • Confirms opinion.

Related Applications Across the Curriculum	Suggested Strategies/Activities
	The teacher, in using effective teaching strategies, exemplifies various types of communication. Ask students to observe their teacher's: • eye contact • carriage and demeanor • ways of greeting people • ways of asking and responding to questions. As in most communication skills development strategies, the students' attention must be focused on the process as well as on the vehicle being used to implement it. Community Partnerships Valuable community partnerships may be established with adults or students who have visual, and/or aural and oral impairments. Students learn to adopt alternative communication techniques and to appreciate that impairment in one domain of communication may often be compensated for by increased proficiency in others.
General This skill is reinforced in all curricula including the core subject areas, physical education and CALM.	If a verbal instruction is complex, e.g., more than two steps in the instruction, have students repeatedly practise strategies that permit grouping and improved memory retention. Strategies include: • taking notes • mental association – matching the familiar with the unfamiliar; e.g., linking seating position of restaurant patron with their food order • chunking – grouping together of small bits of information into larger units; e.g., remembering a telephone number by grouping numbers into a three and a four number unit. Discuss strategies used by students, the pros and cons, in different situations. The verbal mode is often students' strongest communication channel. Teachers should initiate instructions verbally and then provide external memory supports. However, some students tend to have difficulty following verbal instructions because of memory and sequencing deficiencies. To strengthen students' ability to relate to verbal instructions, written directions, job sheets and/or pictorial sheets should precede the giving of verbal instructions.

COURSE: OCCUPATIONAL COMPONENT (I.O.P. Grade 10)
COMMUNICATION SKILLS (03)

LEARNING OBJECTIVES	Related Life Skills
A.5 Asks questions: • written • oral • pictorial.	Seeks directions and instructions when necessary. Seeks clarification when information is unclear. Appreciates the importance of asking questions in an appropriate manner, using complementary verbal and/or non-verbal techniques.

Related Applications Across the Curriculum	Suggested Strategies/Activities
General The ability to ask and answer questions is important in all subject areas. A person is judged not only on the ability to answer questions but also on the perception shown in asking pertinent questions. In **English, mathematics, science** and **social studies** courses students are encouraged to develop critical thinking skills and to formulate and ask questions that will assist them in problem solving, conflict resolution, and information gathering.	Have students discuss and compare techniques used to give and to follow instructions: • in various courses • in a part-time job • during a field experience. The teacher may have the students write and present an original instructional statement on simple everyday operations: • how to use a telephone • how to use a standard household appliance such as a washing machine • how to use a hammer • how to ride a bicycle • how to start an automobile safely. Flow charts and diagrams may be used to support written instructions. (See *Teacher Resource Manual*, "Visual Skills".) Once students have created what they consider to be an accurate instructional statement, they may exchange their ideas and evaluate the validity of each other's statements. Some of these activities can take place within the class, while others may need to be performed at home with a report being brought to the class. This type of activity provides students with the opportunity to create instructional documents, as well as evaluate and use such sequenced procedures. Have students formulate questions related to an occupational procedure that may be asked of another: • in writing • orally • pictorially; e.g., flow charts • a combination of all three. It is suggested that whenever a student is asking a question and the appropriate technical term is not used, the teacher should use the term and encourage the student to use appropriate terminology in future communications.

LEARNING OBJECTIVES	Related Life Skills
A.6 Recognizes occupation related communication techniques: • knows and uses appropriate technical terms • is aware of alternative technical terms used in other areas e.g., "Frog" Science – amphibian Agriculture – part of a horse's hoof Railway – part of a switch mechanism.	Uses appropriate terminology in occupational clusters and courses including terms related to: AGRIBUSINESS • Identifying crops • Selecting fertilizers • Purchasing supplies BUSINESS AND OFFICE OPERATIONS • Types of forms • Mail handling procedures CONSTRUCTION AND FABRICATION • Buying tools • Ordering fasteners • Plumbing fixtures CREATIVE ARTS • Selecting drawing tools • Describing types of paint • Identifying types of paper NATURAL RESOURCES • Recognizing drill equipment • Identifying trees • Requisitioning supplies PERSONAL AND PUBLIC SERVICES • Cutting hair • Designing make-up • Using fabric care chemicals TOURISM AND HOSPITALITY • Cooking • Waiting tables • Janitorial services TRANSPORTATION • Stockkeeping • Warehousing • Repairing a car

Related Applications Across the Curriculum	Suggested Strategies/Activities
General Each subject area has a vocabulary specific to it. In **English**, the use of specific occupation-area vocabulary is reinforced through a variety of learning strategies, including: • listening for context clues • expanding sight vocabulary In **social studies**, such terms as geography, century, and longitude, are required in the study of that subject area. In **mathematics** and **science**, technical vocabulary includes divisor, common denominator, percentage, energy, force, and fulcrum. As vocabulary is integrated throughout the curriculum, students should be encouraged to use the words that apply in other subject areas within each of the other courses. For example, a student writing an essay in **English 16** may wish to call upon the vocabulary that has been learned in occupational courses in order to be more specific. A master vocabulary book is one way for students to record all new words learned throughout the year. A simple code can be used in front of each of the words to designate the subject area within which it was learned or to which it primarily applies. As the program develops, an excellent vocabulary word list will be built and in future years may be provided to the students at the beginning of the term for both review and reinforcement.	Use technical terms and language as appropriate to the students' level of comprehension. Be consistent in the use of a technical term, especially where alternatives may be commonly used. Where there are commonly used alternative terms, provide students with a list of these. Technical terms used in each activity should be clearly defined, and information and worksheets developed to improve students' understanding of terms. After adequate instruction and exposure to technical terms, the students should be expected to use those terms in conversation related to the course and related occupations. Community Partnerships Community partnership activities in the form of field experiences, field trips, in-class presentations by partners, use of trade journals and related informational material will assist students to "learn the lingo/jargon" of an occupation. Wall posters may similarly aid in familiarizing and reinforcing students' use of occupational terms. (See *Teacher Resource Manual*, "Communication Skills", for additional suggested student activities and community partnerships.)

READING

CONCEPTS:

- Recognizes the importance of being able to read effectively.
- Identifies examples of occupation related literature.
- Gives examples of resource centres where occupation related literature may be located.

ATTITUDES:

- Appreciates how the ability to read can impact on the job search process.
- Becomes increasingly aware of how one's lifestyle can be affected by the ability to read.
- Appreciates that reading ability can be improved through reading practice.

SKILLS:

The skills related to **READING** are outlined in the Learning Objectives in column one.

COURSE: OCCUPATIONAL COMPONENT (I.O.P. Grade 10)
READING SKILLS (04)

LEARNING OBJECTIVES	Related Life Skills
A. READING SKILLS	
A.1 Identifies resource centres • in class • in school • in the community.	Knows • location of libraries • information bureaus
A.2 Recognizes the variety of resources	Reads • customer records • product labels • shop manuals • trade/business magazines • information booklets • job sheets • instructions from manufacturers • Yellow Pages Directory • newspapers • TV Times • lists of available films, videos, audio-tapes
A.3 Follows written instructions • text • tables • diagrams • synthesizes information from a combination of sources	Uses • library indexes • book indexes • job sheets • a map • tools and equipment according to manufacturers' instructions Students reinforce these skills in • carrying out assignments in school, at home, or in the workplace • responding to job advertisements • following manufacturers' instructions on tools, equipment and supplies • completing tests, projects • reading information sheets • following job sheets

Related Applications Across the Curriculum

General

In each of the core subject areas, **English, mathematics, science** and **social studies**, students are encouraged to identify centres containing related resources, and to follow written instructions.

Mathematics 16

Collects information from a variety of sources in solving consumers' problems including product labels, information booklets, tables, charts, graphs, newspapers.

Science 16

Collects information from a variety of sources in performing investigations including reference booklets, tables, charts, graphs, media.

Social Studies 16

Students are encouraged to read material obtained from a variety of resources including newspapers, magazines, pamphlets.

Suggested Strategies/Activities

The student workbook available for each occupational course provides a variety of opportunities for silent reading, oral reading, and following instructions. Reinforce model reading behaviours and encourage students to search for new and further information to perform a task.

When responding to a student's question about an item known to be written in an available resource, have the students obtain the resource (if readily available) and find the answer to the question.

Ensure that written instructional aids are laid out in a clear and concise manner. Special attention should be paid to the following:

- reading level
- clarity of technical terms
- clear and concise diagrams.

Additionally, students should be able to follow a sequence of verbal instructions. In fact, many students who experience severe difficulties in reading or writing, have adopted compensatory coping skills. One such skill is the ability to remember a sequence of instructions given verbally. In the past, that ability to recall verbal instructions has perhaps enabled the student to circumvent the need to read or write such instruction.

When giving instructions, the following strategies may be used:

- Advise the students that a series of instructions will be given in written and verbal form.
- Read the instructions from start to finish without interruption.
- Begin again with instruction number one. State it clearly and ask if the students understand it. If so, proceed to instruction number two, and so on.
- Ask students to:
  - paraphrase the instruction
  - explain any aspect that seems unclear.
- Ensure that all steps are validated through feedback.

(See *Teacher Resource Manual*, Suggested Teaching Strategies, "RAP".)

LEARNING OBJECTIVES	Related Life Skills
A.4 Locates references: • government documents • trade journals • service/shop manuals • catalogues • videotapes.	Obtains correct part replacements from a catalogue. Orders supplies from a supply order sheet. Follows manufacturers' guides to read temperatures, pressures. Adjusts machinery according to service manuals. Uses cleaning agents correctly. Follows procedures for crop planting and animal feeding. Adheres to written safety instructions. Reads terms of employment. Locates places on a map.

Related Applications Across the Curriculum	Suggested Strategies/Activities
General Locational skills are developed in all subject areas. Students are encouraged to access a variety of resources in order to complete required and elective investigations, research and other projects. Social Studies 16 Warranties and guarantees are read and interpreted to identify the responsibilities of consumers and manufacturers.	Set up a classroom/lab resource centre. Have shop manuals and trade, business, industrial journals and other publications readily available and visible in the classroom or shop. Encourage student use. Community Partnerships Arrange: • for students to obtain public library cards • visits to libraries and other resource centres both in-school and in the community • library orientations. Permit students time to browse through the variety of resource material • on a bi-weekly or monthly basis, arrange for the students to spend a block of time in a selection of community resource centres in order to obtain the most recent information relating to the occupational area: – technological changes – market trends – job/career opportunities. (See *Teacher Resource Manual*, "Reading Skills" for additional suggested student activities and community partnerships.)

WRITING

CONCEPTS:

- Recognizes the importance of being able to write legibly.
- Recognizes that writing ability is improved through practice.
- Understands the writing process:
  - establishing the context
  - focusing on the writing task
  - composing and writing a draft
  - editing and proofreading
  - sharing the written work.

ATTITUDES:

- Appreciates how the ability to write legibly can impact on the job search process.
- Develops a responsible attitude to writing.
- Conforms to appropriate styles of writing.

SKILLS:

The skills related to **WRITING** are outlined in the Learning Objectives in column one.

LEARNING OBJECTIVES	Related Life Skills
A. WRITING SKILLS	
A.1 Recognizes the need for basic writing skills.	Numerous life situations require students to develop the ability to use a clear, legible, yet personal style of penmanship, and/or the ability to use a typewriter or word processor. A few examples of such life experiences are listed below:
	• Neat, clear writing is important in presenting oneself in a job application or resume.
	• The completion of forms requiring personal information requires a high degree of legibility.
	• On the job, students may be required to write neatly and legibly when completing sales slips, receipts, invoices, time sheets and Workplace Hazardous Materials Information System (WHMIS) labels.
A.2 Writes complete sentences.	Writes:
	• thank you notes • a letter regarding a defective product • accident reports • job application letters • application forms • personal correspondence • greeting and postcards • recipes and mixing instructions • memos and reports • telephone messages.

Related Applications Across the Curriculum	Suggested Strategies/Activities
General In respect to basic writing skills, every subject area has a part to play in the development of legible handwriting by students and, where appropriate, keyboarding skills. Interstaff conferencing is recommended as a method to establish minimum acceptable writing standards. These standards may relate to the correct use of words and sentence structure, as well as the legibility of the writing.	Selected samples of students' handwriting from other classes or from previous years (anonymous) may be converted to overhead transparencies and used to illustrate desirable writing skills. Students should also become aware of the need to print legibly when required to do so, on forms, exams and reports. In analyzing and practising writing, students should be provided with assignments that: • relate to the occupational area • use easily spelled words • contain simple sentences • are relevant to students' age level and areas of interest. In related occupational areas, writing skills may be transferred, in part, to the development of skills for using a word processor or typewriter. Community Partnerships Invite community partners to assist in making students aware of the specific job-related occasions where the ability to write clearly, concisely and legibly is an important part of the job. (See *Teacher Resource Manual*, "Writing Skills" for additional suggested student activities and community partnerships.)

LEARNING OBJECTIVES	Related Life Skills
A.1 Recognizes the need for basic writing skills (cont'd).	
A.2 Writes complete sentences (cont'd).	

Related Applications Across the Curriculum

General

Every teacher from time to time needs to write a note, a memo, a letter to a community partner. When it is appropriate to do so, the teacher in any subject area can use the situation as an opportunity to allow students to write the message on the teacher's behalf. Of course, such student work should be monitored and corrected before it is sent out. In all courses there should be a direct correlation between this skill and achievement. Where appropriate, students may use a word processor program to assist them in developing writing composition skills.

Mathematics 16

Students investigate the use of a variety of application forms encountered through employment and daily living (e.g., credit applications, bank account applications).

Science 16

Uses writing skills in recording and communicating the results of investigations.

Suggested Strategies/Activities

Writing is sometimes a neglected area of skill development in occupational courses. Requirements for writing complete and related sentences have tended to be replaced by point form response sheets and fill-in-the-box or blank tests. Rather than requiring written work only on tests, encourage students to write a job sheet for one or more of their practical projects. Indicate that you want them to respond to the following in sentence form:

- why they selected their project
- what equipment, tools and supplies they will need
- the expected time for completion
- how they intend to evaluate the completed project.

An outlining strategy may be used:

Project title _____
Equipment, tools, supplies needed _____
Time to complete project _____
Procedure _____
How will the project be evaluated _____

Community Partnerships

Encourage job-related writing:

- letters of request/appreciation to:
  - guest speakers
  - customers for patronizing the schools customer service areas
  - field experience supervisors in school and in the community
- promotional writing, advertising and inviting parents and other community partners to participate in:
  - career days
  - projects and customer services
  - other school/community activities.

MATHEMATICS

CONCEPTS:

- Develops an understanding of the use of mathematics as applied in occupational context.
- Recognizes the need for increasing computational competence in both daily life and occupation related activities.
- Identifies technology that has influenced the nature of the computational process and procedures commonly used in the workplace.

ATTITUDES:

- Values the importance of computational competence and problem-solving skills in most occupations.
- Appreciates the need for effective management of finances, inventory and other quantifiable materials.
- Appreciates the reasons why different systems of measurement are used in the workplace; e.g., imperial, metric.

SKILLS:

The skills related to **MATHEMATICS** are outlined in the Learning Objectives in column one.

LEARNING OBJECTIVES	Related Life Skills

A. MATHEMATICAL SKILLS

A.1 Reads numbers to six digits:

- reads numbers containing decimals
- reads numbers containing fractions.

Reads and interprets:

- gauges
- rulers
- micrometers
- tire pressure meter
- angle measures
- menu prices
- bills
- receipts
- recipes
- proportions
- percentages
- area measures
- volume measures.

A.2 Adds, subtracts, multiplies and divides:

- performs mental arithmetic
- uses a calculator to compute mathematical problems.

A.3 Uses whole numbers, fractions and decimals.

AGRIBUSINESS
- Calculates savings for bulk purchases
- Calculates growing area

BUSINESS AND OFFICE OPERATIONS
- Handles cash
- Calculates cost of mailings

CONSTRUCTION AND FABRICATION
- Calculates surface
- Purchases materials by weight

CREATIVE ARTS
- Cuts stock for multiple use
- Calculates supply needs

NATURAL RESOURCES
- Calculates volume
- Calculates yield

Related Applications Across the Curriculum	Suggested Strategies/Activities
Mathematics 16 Focuses on development of computational skills with whole numbers, decimals, fractions and integers. Students are encouraged to select computational methods that are appropriate to each problem situation; e.g., • mental computation • paper and pencil computation • estimation • calculator computation. Conferencing between mathematics and occupational teachers will establish specific parameters within which computational procedures need to be performed.	Each occupational area has a component that requires students to demonstrate the ability to read and use numbers containing up to six digits. Included is the ability to read various tools and devices to measure: • temperature • length • capacity • mass • land speed • pressure. Have students use measuring tools and devices appropriate to the occupational area to take and to read and record measurements of related items. Provide students with worksheet exercises that have practical applications in related occupations to develop skills in mental calculation and in the use of a calculator. Occupation related measurement and calculation materials are provided in the *Teacher Resource Manual* Appendices 7-10.
General This set of skills is similarly integrated across the curriculum. The four basic mathematical operations may be utilized in almost all subject areas. Teachers may decide to direct students carefully in the use of hand-held or desktop calculators to perform and to reinforce the performance of the four basic calculations. While there are situations in which the use of the calculator may be precluded, it is a valuable compensatory aid for students experiencing severe difficulty in arithmetic computations. Its use should be encouraged in all subject areas, paying special attention to the use of the touch method on the number pad. This skill is valuable in school and throughout life.	

LEARNING OBJECTIVES	Related Life Skills
	PERSONAL AND PUBLIC SERVICES • Divides gratuities • Mixes solvents TOURISM AND HOSPITALITY • Changes recipes • Counts bookings TRANSPORTATION • Takes inventory • Calculates mileage
A.4 Uses metric units of measurement: • identifies metric terms and abbreviations for mass, volume, length and pressure • recognizes importance of accurate measurement • uses appropriate measuring tools.	AGRIBUSINESS • Calculates yield • Measures area BUSINESS AND OFFICE OPERATIONS • Orders supplies • Applies postage by weight CONSTRUCTION AND FABRICATION • Cuts wood studs and panels • Selects correct size tools CREATIVE ARTS • Mixes paints • Cuts canvas NATURAL RESOURCES • Measures and records: – volume of gas – pressure of oil – temperature PERSONAL AND PUBLIC SERVICES • Uses measuring spoons • Changes currency • Gives distance information TOURISM AND HOSPITALITY • Uses measuring spoons • Gives distance information TRANSPORTATION • Pumps gas • Weighs cargo.
A.5 Uses non-metric units of measurement, where necessary: • identifies Imperial terms and abbreviations for mass, volume, length and pressure • recognizes importance of accurate measurement • uses appropriate measuring tools.	

Related Applications Across the Curriculum	Suggested Strategies/Activities

General

Alberta Education uses the metric system. However, within the occupational component of the program, a number of occupational areas will continue to reflect the workplace usage of both metric and imperial measurements. In the areas of Commercial Food Preparation and Food Services, workplace usage includes the metric, the imperial, and the U.S. systems of measurement.

Mathematics 16

Emphasis is placed on the development of measurement skills, using metric units of length, area, volume, mass, capacity, angle, measure, time and temperature. Learning activities develop a mind set to various units, appreciation of the suitability of specific units for given tasks, recognition of common tools of measurement, and proficiency in estimation and first-hand measurement. Elective content dealing with the more common imperial units still used in society may be studied as required.

Cooperative planning between occupational and mathematics teachers will assist in identifying which imperial units students should experience in a mathematics class.

Science 16

Skills of measurements are reinforced through a variety of practical applications.

Metric units of measurement and metric measurement tools should be used whenever possible. However, it should be recognized that students may go home to families, or to part-time jobs, that do not use metric. In many instances, a combination of metric and imperial measuring tools and units may be used.

In some occupational courses, non-metric units of measurement may be used in conjunction with metric units (e.g., construction services, building services, commercial food preparation).

In cases where formulas, recipes, and measurements, require non-metric units, do not teach conversion of non-metric quantities to metric quantities. Rather, give advice and demonstrate to students the location and the use of non-metric measuring tools and devices.

(See *Teacher Resource Manual*, "Mathematical Skills" for additional suggested student activities and community partnerships.)

VISUALIZING

CONCEPTS:

- Develops an understanding of why signs and symbols are used in business and industry.
- Acquires knowledge of occupation-related signs and symbols.
- Identifies signs and symbols that relate to occupational health and safety.
- Explains the purpose of charting and graphing information.

ATTITUDES:

- Appreciates the usefulness of symbols and signs in the workplace.
- Demonstrates awareness of danger and concern for others when using materials depicting a hazardous warning sign.
- Organizes information in chart of graphic form.

SKILLS:

The skills related to **VISUALIZING** are outlined in the Learning Objectives in column one.

LEARNING OBJECTIVES

Related Life Skills

A. VISUAL SKILLS

A.1 Identifies signs and symbols common across occupations:

Pictorial	Numeric
Road signs	Mathematics
Fabric care	Science
Safety	

Alphabetic	Combination
Fire extinguishers	Hazardous product
Chemicals	Road signs

A.2 Reads charts and graphs.

AGRIBUSINESS
- Recognizes farm signs
- Identifies toxic chemicals

BUSINESS AND OFFICE OPERATIONS
- Reads bank statements
- Proofreads

CONSTRUCTION AND FABRICATION
- Recognizes hazardous areas
- Reads blueprints

CREATIVE ARTS
- Reads model plans
- Interprets graphic symbols

NATURAL RESOURCES
- Conforms to underground mining signals
- Follows logging signs

PERSONAL AND PUBLIC SERVICES
- Uses correct fire extinguishers
- Treats fabrics correctly

TOURISM AND HOSPITALITY
- Recognizes campsite locational signs
- Locates tourist facilities on a map

TRANSPORTATION
- Uses hand signals
- Obeys traffic signs.

Related Applications Across the Curriculum

General

Students are generally expected to be able to read and interpret subject related signs and symbols including maps, transportation schedules, shipping labels and material labels. Each subject area introduces students to a number of symbols unique to that subject area.

English 16

Critical visual skills are developed to provide students with the ability to extend and expand their experiences by using their stronger modalities for learning; i.e., seeing and hearing.

Mathematics 16

Commonly used signs and symbols used include:

- $\div$, $+$, $-$, $\times$, %, x^2, ( ), x^3, $\sqrt{}$ as well as the symbols representing the metric units of measure that are commonly used.

Science 16

A variety of viewing skills involving pictorial, numeric, and alphabetic symbols are used including:

Danger — Warning Advertisement — Caution Attention — Poison

- Hazardous chemical symbols

Washing — Bleaching — Drying — Ironing — Dry Cleaning

- Fabric care symbols

Suggested Strategies/Activities

Prepare information/worksheet showing related signs and symbols. Possible themes for information sheets and for discussion include:

"Safety is everybody's business."

"The life you are protecting may be your own."

Internationally-recognized signs and symbols are included in the *Teacher Resource Manual*, "Visual Skills". In addition, the driver's manual may be used as a source of pictorial symbols.

Students should be encouraged to develop graphs, charts and other visual modes of displaying and recording their achievements.

Charts and graphs may be used to:

- record students' progress
- record completion of tasks
- maintain records of attendance
- record customer service projects
- maintain a record of community partnership activities.

	LEARNING OBJECTIVES	Related Life Skills
E	A.3 Shows creative potential • demonstrates ability in: – design – art – crafts – organizational ability – group dynamics – leadership.	Creativity may be demonstrated in the context of each occupational cluster; e.g., AGRIBUSINESS • Shows cattle • Designs landscapes BUSINESS AND OFFICE OPERATIONS • Creates window displays • Organizes office procedures CONSTRUCTION AND FABRICATION • Designs birdhouses • Constructs a playground CREATIVE ARTS • Paints school mural • Contributes crafts to charities NATURAL RESOURCES • Initiates pollution control activities • Volunteers as a firefighter PERSONAL AND PUBLIC SERVICES • Volunteers as a candystriper • Provides beauty services to hospital patients TOURISM AND HOSPITALITY • Tends gardens for handicapped • Joins St. John Ambulance • Enrols in youth group leadership training TRANSPORTATION • Delivers for 'Meals on Wheels' • Works in 'Good Will' store.

E = Elective Component

Related Applications Across the Curriculum

Suggested Strategies/Activities

Social Studies 16

Assignments may involve the use of symbols, including degrees, minutes, seconds, in respect to latitude and longitude; topographical symbols for both geographical and man-made features:

railways

grasslands

church

General

Encouragement and reinforcement of each student-demonstrated executive ability and potential ability is an integrated approach taken across the curricula in the Integrated Occupational Program.

Students may need to communicate with teachers from a variety of subject areas and with one or more persons in the community. This type of integrated learning should be encouraged.

Mathematics 16

Students apply measurement and geometric skills in creating scale drawings, patterns and designs appropriate to a variety of construction, decoration and repair projects.

Science 16

Creative ability is encouraged through many aspects of the science program (e.g., invents and constructs simple technologies required to perform a given function).

Students may demonstrate their creative potential in a variety of forms including:

- organizational ability
- leadership ability
- design and layout
- artwork
- group dynamics
- craft work.

Students may initiate their own projects or consult with a teacher, community member, volunteer association, or other agency to gain project ideas and/or to take on a commissioned project. Projects may include:

- sign writing
- poster making
- craft work
- peer tutoring
- play group leader
- youth group counsellor
- window display.

Students should be required to draft both the project plan and the criteria by which their project should be evaluated. The greater the degree of student ownership of the project, the greater the potential motivation to do the job well.

	LEARNING OBJECTIVES	Related Life Skills
E	A.3 Shows creative potential (cont'd)	

Related Applications Across the Curriculum	Suggested Strategies/Activities
	Project work which requires the student to demonstrate a broad range of initiatives, knowledge and skills is a useful enrichment activity. Teacher guidance, however, is essential to these activities to ensure that: • the project is within each student's known potential ability level • the project will provide beneficial learning experiences • the project will provide opportunities for the student to experience success As an elective component, students who demonstrate significant strengths may work on individual or group projects that relate to other occupational areas. These creative projects may focus on activities related to the: • curriculum • co-curriculum • community. (See *Teacher Resource Manual*, "Visual Skills" for additional suggested student activities and community partnerships.)

ENTREPRENEURSHIP

CONCEPTS:

- Develops an understanding of how personal interests and skills may be related to entrepreneurial opportunities.
- Recognizes small business operations in the community.
- Recognizes entrepreneurship as a career option.

ATTITUDES:

- Appreciates the role played by entrepreneurs in society.
- Appreciates the potential for enterprise within occupational clusters.

SKILLS:

The skills related to **ENTREPRENEURSHIP** are outlined in the Learning Objectives in column one.

LEARNING OBJECTIVES	Related Life Skills
A. ENTREPRENEURIAL AWARENESS	
A.1 Defines "entrepreneurship" and "entrepreneur".	Entrepreneurial career options may include: AGRIBUSINESS • Farm mechanic • Gardening BUSINESS AND OFFICE OPERATIONS • Commission sales • Courier CONSTRUCTION AND FABRICATION • Handyman/handywoman • Window cleaner CREATIVE ARTS • Craft maker • Artist NATURAL RESOURCES • Firefighter • Trail guide PERSONAL AND PUBLIC SERVICES • Maintenance worker • Maid service TOURISM AND HOSPITALITY • Tourist guide • Ski instructor TRANSPORTATION • Truck driver • Gas station operator.
A.2 Identifies small businesses in the community.	
A.3 Recognizes entrepreneurship as a potential career path.	

Related Applications Across the Curriculum

Mathematics 16

Students investigate different kinds of wages (e.g., weekly, hourly, monthly, contract) and compulsory deductions in theme on "Earning Money". Students are encouraged to investigate entrepreneurial opportunities within their local communities.

Science 16

Students investigate entrepreneurial opportunities in local community that might be related to personal health and fitness, technology repair and service, or environmental care.

Social Studies 16

Students identify newly created jobs in the community and examine the skills required to operate similar businesses.

Suggested Strategies/Activities

Teaching students that they have the potential to be entrepreneurs is a relatively recent addition to high school curricula. There are, however, strong indicators that our economy will benefit from young people who accept the challenge of marketing themselves and their skills in the marketplace.

Some students may not be able to relate well to others in occupations where teamwork is a major requirement. However, these students may have the potential to:

- develop saleable skills
- develop entrepreneurial skills.

Teachers should not overlook this dimension of each student's potential, and should attempt to build on this potential whenever it is shown by a student.

Individual, elective projects may be initiated by a student, a teacher, a community member or a combination of all three.

Community Partnerships

Occupational courses using customer service as an instructional component provide excellent opportunities to introduce students to basic sales and marketing techniques and to reinforce the importance of good human relation skills for those students especially interested in careers in the service industries.

A brainstorming session led by a student may be directed toward identifying customer service activities and other entrepreneurial activities not previously considered or used.

(See *Teacher Resource Manual*, "Entrepreneurship" for additional suggested student activities and community partnerships.)

COMMUNITY PARTNERSHIPS

CONCEPTS:

- Understands that job and career opportunities are affected by changes in society.
- Acquires knowledge of the potential job and career opportunities in the community.
- Recognizes that workers must be flexible and open to new and emerging career opportunities.

ATTITUDES:

- Recognizes the value of on-the-job learning.
- Appreciates cooperative learning opportunities provided by community partners.
- Appreciates the need and the opportunity to provide volunteer services to individuals or agencies in need.
- Appreciates that continual skill development and refinement are positive actions.

SKILLS:

The skills related to **COMMUNITY PARTNERSHIPS** are outlined in the Learning Objectives in column one.

COURSE: OCCUPATIONAL COMPONENT (I.O.P. Grade 10)
COMMUNITY PARTNERSHIPS (09)

LEARNING OBJECTIVES	Related Life Skills

A. FIELD EXPERIENCES

A.1 Participates in field experiences.

A.2 Demonstrates satisfactory behaviour during community partnerships:

- practices appropriate work skills
- demonstrates human relations skills
- demonstrates safety and sanitation skills
- demonstrates communication skills
- demonstrates ethical behaviour.

AGRIBUSINESS
- Cares for animals
- Maintains a garden

BUSINESS AND OFFICE OPERATIONS
- Pays bills on time
- Deals with salespersons

CONSTRUCTION AND FABRICATION
- Performs handyman repairs
- Decorates a room

CREATIVE ARTS
- Develops leisure activities
- Demonstrates hobbies to youth group

NATURAL RESOURCES
- Volunteers as a firefighter
- Participates in community clean up

PERSONAL AND PUBLIC SERVICES
- Cares for young, sick, aged
- Cares for personal wardrobe

TOURISM AND HOSPITALITY
- Prepares meals
- Serves guests

TRANSPORTATION
- Maintains car
- Takes inventory of assets

Related Applications Across the Curriculum	Suggested Strategies/Activities

English 16

The knowledge, skills and attitudes developed in **English** are used in both verbal and non-verbal communications between students and adults. These become more meaningful in the context of a community partnership.

Mathematics 16

Provides the knowledge and skills necessary to function in a variety of home, school, and community endeavours.

Social Studies 16

Community partnerships is also important in the **social studies** program as students are encouraged to increase their awareness of their community, the larger society, and the services that both the community and the larger society make available to people.

Science 16

The **science** program uses a range of community partnerships activities to investigate the application of scientific principles and technologies.

Community Partnerships

Community partnerships involve taking the school into the community and bringing the community into the school. By bringing the school into the community (e.g., guest speakers and demonstrations, customer service projects), community members are more aware of the Integrated Occupational Program and become active participants in the students' learning activities.

Field experiences are an integral part of community partnerships in the Integrated Occupational Program. They may be developed and used in many forms. Some of these forms have been suggested in the adjacent column and in previous units of instruction.

Teachers are encouraged to maximize their personal contact with related business and industries in the community. This personal contact facilitates the availability of community members to act as guest speakers, demonstrators, job-shadow role models, field trip contacts, among others.

(For more detailed explanation of community partnerships, read: *Information Manual for Administrators, Counsellors and Teachers*, "Community Partnerships". Additional suggested community partnerships are provided in both the *Teacher Resource Manual* and in the student workbook available for each occupational course.)

WORK SKILLS

CONCEPTS:

- Develops an understanding of occupation related:
  - equipment, tools and supplies
  - safe and sanitary practices
  - standards of performance and productivity.
- Recognizes that a sense of pride in performance, task completion and achievement contribute to employability.

ATTITUDES:

- Recognizes the value and transferability of occupation related skills.
- Develops an attitude of curiosity and openness to new ideas, new techniques and new tasks being critical and constructive in the identification, selection and application of ongoing task related strategies.
- Seeks out learning opportunities for skill development and refinement.

SKILLS:

The skills related to **WORK SKILLS** are outlined in the Learning Objectives in column one.

LEARNING OBJECTIVES

Related Life Skills

10. WORK SKILLS

The work skills identified in column one of this *Program of Studies/Curriculum Guide* are generic to each of the courses that comprise the occupational component of the Integrated Occupational Program. The course specific scope and sequence charts provided in this document identify the suggested work skills applications in each occupational course.

A Work Skills Profile specific to the occupational course is contained in each student workbook.

Life skills are addressed in each of the following occupational clusters and related occupational courses:

AGRIBUSINESS
- Agricultural production
- Agricultural mechanics
- Horticulture services

BUSINESS AND OFFICE OPERATIONS
- Business services
- Office services

CONSTRUCTION AND FABRICATION
- Construction services
- Building services

CREATIVE ARTS
- Crafts and arts
- Technical arts

NATURAL RESOURCES
- Natural resource services

PERSONAL AND PUBLIC SERVICES
- Hair care
- Esthetology
- Child and health care services
- Fashion and fabric care services

TOURISM AND HOSPITALITY
- Commercial food preparation
- Food service
- Maintenance and hospitality services

TRANSPORTATION
- Automotive services
- Gas/service station operations
- Warehousing

Related Applications Across the Curriculum	Suggested Strategies/Activities
Teachers are encouraged to liaise with colleagues and community members in order to maximize the potential for integrating the resources of the school and its community.	Suggested student activities/community partnerships are included in the student workbook which is available for each Grade 10 level occupational course in the Integrated Occupational Program. Teachers are encouraged to supplement and complement the material contained in student workbooks with additional learning activities that best meet the needs, interests and ability levels of their students. Community Partnerships Community partnerships are an integral component in the teaching and learning of work skills related to each occupational area. Partnership activities may include: • in-school activities – using community newspapers, newsletters – guest speakers – guest demonstrators – guest project evaluators – community and parent visitations – customer services • field experience activities – job shadowing – field trips – interviews – surveys – volunteerism – part-time jobs – community work – work study – work experience.

COURSE: OCCUPATIONAL COMPONENT (I.O.P. Grade 10)
WORK SKILLS (10)

LEARNING OBJECTIVES	Related Life Skills
A. IDENTIFICATION	AGRIBUSINESS • Repairs farm equipment • Uses milking machine
A.1 Identifies job scope.	BUSINESS AND OFFICE OPERATIONS • Uses copiers • Maintains inventory
A.2 Identifies equipment, tools and supplies.	CONSTRUCTION AND FABRICATION • Selects chisels • Uses correct fasteners
B. EQUIPMENT, TOOLS AND SUPPLY USAGE	CREATIVE ARTS • Minds printing machine • Conserves art supplies
B.1 Demonstrates safe use of equipment, tools and supplies.	NATURAL RESOURCES • Wears protective clothing • Maintains hand tools
B.2 Selects appropriate materials for the job.	PERSONAL AND PUBLIC SERVICES • Colours hair • Feeds a baby or disabled person
B.3 Uses correct methods to produce a product or to provide a service.	TOURISM AND HOSPITALITY • Bakes pastry • Gives English translation service
	TRANSPORTATION • Pumps gas • Replaces motor vehicle headlamps.

Related Applications Across the Curriculum	Suggested Strategies/Activities
Mathematics 16 Students determine materials required for a variety of construction and repair projects (e.g., fencing, painting, decorating).	A significant variety of tools, equipment, and supply items are used by students in the occupational component of the Integrated Occupational Program. Many occupational areas address the development of skills in the use of tools such as hand tools, and power tools. Descriptions of some commonly used hand and power tools, together with sample job and information sheets, are provided in the *Teacher Resource Manual*, "Work Skills". Teachers are encouraged to be flexible in their unit and lesson planning, especially in lessons that deal with equipment, tools, and supply identification and safe use. Where students demonstrate satisfactory levels of skill development in these areas, enrichment activities may be provided: • teacher directed projects • self-directed projects • community activities • volunteer work.
Science 16 Students practise safe procedures for the handling and storage of potentially dangerous materials, and plan and perform experiments using appropriate safety procedures.	

LEARNING OBJECTIVES	Related Life Skills

C. WORK STANDARDS

C.1 Identifies and works to accepted standards:

- follows a plan
- follows a method
- determines sequence of tasks to perform a task
- executes plan
- evaluates outcome.

D. SUPPLY MANAGEMENT

D.1 Manages supplies efficiently.

E. WORK AREA MANAGEMENT

E.1 Maintains work area in a safe and sanitary condition:

- cleans up
- replaces tools in correct storage locations
- discards wastes
- leaves work area ready for next student.

AGRIBUSINESS
- Feeds cattle
- Harvests crops

BUSINESS AND OFFICE OPERATIONS
- Handles mail
- Sells products

CONSTRUCTION AND FABRICATION
- Builds a model
- Replaces a window

CREATIVE ARTS
- Designs a Christmas card
- Prints a business card

NATURAL RESOURCES
- Plants seedlings
- Cleans drill tools

PERSONAL AND PUBLIC SERVICES
- Maintains house for aged persons
- Creates a hairstyle

TOURISM AND HOSPITALITY
- Gives good service
- Uses a recipe

TRANSPORTATION
- Takes stock inventory
- Provides motor vehicle front-end service.

Related Applications Across the Curriculum	Suggested Strategies/Activities
General Work standards and process skills are emphasized in all core subjects. Teacher conferencing will enable teachers in all disciplines to establish similar expectations for the various aspects of students' performance and attitudes. Mathematics 16 Students interpret and draw scale diagrams in theme "Measurement, Patterns and Designs". Such experiences require that students are able to identify and sequence steps to be followed in completing a project or task. Social Studies 16 The decision-making model Input → Process → Output forms the basis for critical thinking and decision making throughout Social Studies 16, Mathematics 16 and Science 16.	All workers are expected to perform to generally accepted standards. Students, as workers or potential workers, should be made aware very early in the instructional process what standards of performance are expected at the Grade 10 level of each occupational course. Performance criteria may include a monthly checklist: • attendance • punctuality • area interest • ability to work with others • responsibility • attentiveness in class • community involvement. In addition, job specific information and job sheets should clearly state details of both the process to be followed and the expected service or product outcome. Both the process skills and the final service or product can be evaluated by using peer evaluations, self-evaluations, or checklists. (See the student workbook available for each occupational course for additional suggested student activities and community partnerships.)

OCCUPATIONAL COMPONENT: SCOPE AND SEQUENCE CHARTS

The following scope and sequence charts identify the required contexts for instruction and the suggested work skills in each I.O.P. occupational course. The majority of the work skills are developmental through Grades 10, 11 and 12.

INTEGRATED OCCUPATIONAL PROGRAM

OCCUPATIONAL COMPONENT

SCOPE AND SEQUENCE

Occupational Cluster: Agribusiness

Occupational Course: **AGRICULTURAL MECHANICS**

Course Sequence: Agricultural Mechanics 16-26-36

Notes: 1. Grade 10 focuses on identification and introduction of skills including rope work, woodworking, metalwork and oxyacetylene welding.
Grade 11 focuses on blueprint reading, arc welding and small engine tasks.
Grade 12 focuses on forgework, soldering, concrete work and electrical installation work.
2. Students indicating an interest in agriculture should be encouraged to consider taking the Agricultural Production and Horticultural Services sequences.

GENERAL OBJECTIVES

1. To develop students' personal and interpersonal skills.
2. To develop students' awareness of opportunities and working conditions in the agriculture industry.
3. To develop students' knowledge and skills of basic mechanics in agriculture.
4. To enable students to obtain employment in a related occupation and/or to articulate with another secondary program or post-secondary institution for further training.

	Grade 10	Grade 11	Grade 12
10 WORK SKILLS			
10.1 Identification			
10.1.1 **Job Scope**	10.1.1 **Job Scope** (a) Identifies the basic skills used in agricultural mechanics • carpentry • metalwork • oxyacetylene welding and cutting	10.1.1 **Job Scope** (a) Describes the basic skills used in agricultural mechanics • carpentry • metalwork • oxyacetylene welding and cutting	10.1.1 **Job Scope** (a) Describes the relationship between: • operation • maintenance • repair • storage • safety
10.1.2 **Equipment, Tools and Supplies**	10.1.2 **Equipment, Tools and Supplies** (a) Identifies major equipment, tools and supplies used in basic • carpentry • metalwork • welding • rope work	10.1.2 **Equipment, Tools and Supplies** (a) Identifies major items of farm machinery (b) Identifies small engines used on farm machinery	10.1.2 **Equipment, Tools and Supplies** (a) Identifies major items of equipment on a farm (b) Identifies types of tools used on a farm (c) Identifies types of supplies used by agricultural mechanics

		Grade 10		Grade 11		Grade 12	
10.2	**Equipment, Tools and Supplies Usage**	10.2	**Equipment, Tools and Supplies Usage**	10.2	**Equipment, Tools and Supplies Usage**	10.2	**Equipment, Tools and Supplies Usage**
10.2.1	Blueprint Reading	10.2.1	Blueprint Reading (a) Identifies types of drawings (b) Identifies drawing features	10.2.1	Blueprint Reading (a) Identifies the purpose of blueprints (b) Reads blueprints (c) Drafts (sketches, draws) a small farm tool project (d) Constructs a project	10.2.1	Blueprint Reading (a) Reads basic blueprints
10.2.2	Rope Work	10.2.2	Rope Work (a) Performs rope work related to agriculture • identifies types of rope • identifies uses of rope • ties knots • shortens ropes • splices ropes (b) Evaluates rope work (c) Identifies safe use practices	10.2.2	Rope Work (a) Reviews Grade 10 unit (b) Identifies the use of ropes in agriculture-related activities (c) Demonstrates safe use practices	10.2.2	Rope Work (a) Demonstrates entry level safety rope work skills (b) Uses ropes in agriculture-related activities (c) Demonstrates safe use practices
10.2.3	Farm Metalwork	10.2.3	Farm Metalwork (a) Constructs an agriculture-related project out of metal • selects metals • lays out • cuts • bends • sharpens hand tools (b) Identifies safe use practices	10.2.3	Farm Metalwork (a) Uses metalwork skills to construct an agriculture-related project (b) Demonstrates safe use practices	10.2.3	Farm Metalwork (a) Demonstrates entry level farm metalwork skills (b) Demonstrates safe use practices (c) Evaluates completed work
10.2.4	Forge Work	10.2.4	Forge Work	10.2.4	Forge Work	10.2.4	Forge Work (a) Demonstrates safe work practices (b) Sets up and shuts down a gas furnace (c) Cuts metal (d) Bends metal (e) Uses drawing and molding techniques (f) Evaluates completed project

	Grade 10	Grade 11	Grade 12
10.2.5 Soldering	10.2.5 Soldering	10.2.5 Soldering (a) Observes soldering operations	10.2.5 Soldering (a) Demonstrates the safe use of soldering equipment, tools and supplies (b) Solders seams, joints and wires (c) Evaluates completed work
10.2.6 Oxyacetylene Welding and Cutting	10.2.6 Oxyacetylene Welding and Cutting (a) Demonstrates the safe use of oxyacetylene equipment to perform: • braze welding • fusion welding • cutting (b) Evaluates completed weld (c) Identifies safe use practices	10.2.6 Oxyacetylene Welding and Cutting (a) Reviews Grade 10 unit (b) Uses welding skills in the production of an agriculture related project (c) Demonstrates safe use practices	10.2.6 Oxyacetylene Welding and Cutting (a) Demonstrates entry-level welding skills (b) Demonstrates safe use practices (c) Evaluates completed work
10.2.7 Arc Welding and Gouging	10.2.7 Arc Welding and Gouging	10.2.7 Arc Welding and Gouging (a) Demonstrates the safe use of arc welding equipment and supplies: • sets up, operates, shuts down • strikes an arc and runs a bead • cuts • fillet welds - flat, horizontal • welds cast iron (b) Evaluates arc welds	10.2.7 Arc Welding and Gouging (a) Demonstrates entry-level arc welding skills (b) Demonstrates safe use practices (c) Evaluates completed work
10.2.8 Small Engines	10.2.8 Small Engines	10.2.8 Small Engines (a) Describes the use of small engines in agriculture, and demonstrates: • operating procedures • preventive maintenance • storage procedures	10.2.8 Small Engines (a) Demonstrates entry level ability to operate small engines

	Grade 10	Grade 11	Grade 12
		(b) Evaluates projects	(b) Demonstrates entry level ability to perform basic maintenance operations (c) Stores engines correctly (d) Demonstrates safe use practices
10.2.9 Farm Carpentry	10.2.9 Farm Carpentry (a) Constructs an agriculture-related project out of wood: • plans project • selects materials • lays out project materials • constructs project • evaluates completed project	10.2.9 Farm Carpentry (a) Uses carpentry skills to build or repair projects	10.2.9 Farm Carpentry (a) Demonstrates entry level farm carpentry skills (b) Demonstrates safe use practices (c) Evaluates carpentry skills
10.2.10 Finishing	10.2.10 Finishing (a) Introduces finishing products and procedures	10.2.10 Finishing (a) Demonstrates basic painting and finishing procedures: • selects paints, varnishes • prepares surfaces • selects brushes • cares for brushes • applies paints, varnishes • stores brushes and paints (b) Demonstrates safe use practices	10.2.10 Finishing (a) Demonstrates entry level finishing skills • selects paints, varnishes • prepares surfaces • selects brushes • cares for brushes • applies paints, varnishes • stores brushes and paints (b) Demonstrates safe use practices (c) Evaluates completed work
10.2.11 Concrete Work	10.2.11 Concrete Work	10.2.11 Concrete Work	10.2.11 Concrete Work (a) Demonstrates entry level ability to work with concrete (b) Selects materials (c) Measures and mixes (d) Makes reinforcements (e) Constructs forms (f) Finishes to standards (g) Demonstrates safe use practices (h) Evaluates completed concrete work

		Grade 10	Grade 11	Grade 12
10.2.12 Farm Electrics		10.2.12 Farm Electrics	10.2.12 Farm Electrics	10.2.12 Farm Electrics (a) Demonstrates safe use practices (b) Recognizes simple circuits (c) Plans wiring needs (d) Reads and understands basic principles of the electrical code (e) Operates electric motors (f) Performs basic maintenance on electric motors (g) Evaluates completed projects
10.2.13 Individual Project		10.2.13 Individual Project (a) Constructs a project related to farm use (b) Evaluates completed project (c) Demonstrates safe use practices	10.2.13 Individual Project (a) Uses combination of skills to construct a project related to farm use (b) Demonstrates safe use practices	10.2.13 Individual Project (a) Demonstrates ability to improvise and construct a project (b) Demonstrates safe use practices (c) Evaluates completed work
10.3	**Work Standards**	10.3 **Work Standards** (a) Identifies related standards: • safety • quality • efficiency • cost • replacement versus repair • building codes	10.3 **Work Standards** (a) Lists standards used for each project (b) Evaluates products from assigned tasks	10.3 **Work Standards** (a) Lists standards used for each task (b) Works to accepted standards (c) Evaluates own performance
10.4	**Supplies Management**	10.4 **Supplies Management** (a) Identifies good supply management strategies: • safety • security • cost • location • storage	10.4 **Supplies Management** (a) Describes how supplies were selected, recorded and costed for each project completed in Grade 11	10.4 **Supplies Management** (a) Compares how supplies were selected, recorded and costed for each project (b) Conserves supplies (c) Evaluates own performance

		Grade 10	Grade 11	Grade 12
10.5	**Work Area Management**	10.5 **Work Area Management** (a) Recognizes the need* for safe and sanitary practices in each work area (b) Maintains a safe, clean work area	10.5 **Work Area Management** (a) Demonstrates care, safety and sanitation in each work area (b) Maintains a safe, clean work area	10.5 **Work Area Management** (a) Demonstrates leadership and initiative in management of work areas (b) Maintains a safe, clean work area (c) Evaluates own performance

INTEGRATED OCCUPATIONAL PROGRAM

OCCUPATIONAL COMPONENT

SCOPE AND SEQUENCE

Occupational Cluster: Agribusiness

Occupational Course: **AGRICULTURAL PRODUCTION**

Course Sequence: Agricultural Production 16-26-36

Notes: 1. Grade 10 focuses on land and soil produced commodities.
Grade 11 focuses on further land usage and introduces animal production.
Grade 12 focuses on animal production.
2. Additional topics may be used dependent upon local agriculture (e.g. beekeeping, hydroponics).
3. Students indicating an interest in agriculture should be encouraged to consider taking the Agricultural Mechanics and Horticulture Services sequences.

GENERAL OBJECTIVES

1. To develop students' personal and interpersonal skills.
2. To develop students' awareness of opportunities and working conditions in agricultural production.
3. To develop students' knowledge and skills of agricultural practices and processes.
4. To enable students to obtain employment in a related occupation and/or to articulate with another secondary program or post-secondary institution for further education.

	Grade 10	Grade 11	Grade 12
10 WORK SKILLS			
10.1 Identification			
10.1.1 Job Scope	10.1.1 Job Scope (a) Defines "agriculture" (b) Identifies local agricultural products (c) Identifies scope of agricultural occupations (d) Identifies local agricultural production and processing occupations	10.1.1 Job Scope (a) Identifies local job and career opportunities (b) Identifies local agricultural operations • service • processing • care • production	10.1.1 Job Scope (a) Demonstrates ability to access job and career opportunities (b) Identifies opportunities for continuing education
10.1.2 Historical Development of Agriculture	10.1.2 Historical Development of Agriculture (a) Identifies historical changes in local production (b) Identifies reasons for changes in local production	10.1.2 Historical Development of Agriculture (a) Identifies trends in agricultural production in Alberta (b) Identifies historical changes in Alberta's agricultural production	10.1.2 Historical Development of Agriculture (a) Identifies the reasons for producing specific commodities

	Grade 10	Grade 11	Grade 12
	(i) Recognizes the effects of changes (ii) Identifies trends in production	(c) Identifies reasons for changes in Alberta's agricultural production (d) Describes the scope of the food industry	
10.1.3 The Food Chain	10.1.3 The Food Chain (a) Defines a food chain	10.1.3 The Food Chain (a) Describes a food chain (b) Describes the relationship of the parts of a food chain	10.1.3 The Food Chain (a) Draws a food chain
10.1.4 Producers and Consumers	10.1.4 Producers and Consumers (a) Defines the terms • producers • consumers • products (b) Identifies the steps used to move products and consumers	10.1.4 Producers and Consumers (a) Recognizes the relationship between producers and consumers (b) Recognizes regional consumer trends and practices • supply and demand • product quality • buying practices • advertising • packaging • consumer protection	10.1.4 Producers and Consumers (a) Identifies local producers and consumers
10.1.5 Factors of Production	10.1.5 Factors of Production (a) Identifies major determinants of production • climate • soil and water • supply and demand • available equipment • labour • transportation	10.1.5 Factors of Production (a) Recognizes regional determinants of production • climate • soil and water • market • transportation	10.1.5 Factors of Production (a) Lists determinants of production in local operations • climate • soil and water • market • transportation

		Grade 10	Grade 11	Grade 12
10.2	**Farm Safety**			
		10.2.1 Farm Safety (a) Identifies safety procedures and practices • farm buildings safety • farm machinery safety • personal safety	10.2.1 Farm Safety (a) Recognizes the importance of farm safety practices • machine safety • livestock safety • personal safety	10.2.1 Farm Safety (a) Demonstrates entry-level farm safety practices • machine safety • livestock safety • personal safety
10.3	**Equipment, Tools and Supplies**	10.3 **Equipment, Tools and Supplies**	10.3 **Equipment, Tools and Supplies**	10.3 **Equipment, Tools and Supplies**
10.3.1	Land	10.3.1 Land (a) Recognizes that land is a natural resource • ownership • location (b) Identifies the basic types of soil • topsoil • subsoil • parent materials (c) Describes physical features of soil • texture • structure • porosity (d) Recognizes the causes of soil erosion • water • wind	10.3.1 Land (a) Lists and describes land produced agricultural products (b) Identifies the composition of soil • mineral content • organic content • air • water (c) Takes and tests soil samples (d) Demonstrates the causes of soil erosion (e) Uses two (minimum) pieces of land care equipment	10.3.1 Land (a) Analyzes soil • pH • organic matter • chemical composition (b) Describes organisms in soil • macro • micro (c) Demonstrates entry-level ability to operate two pieces of land care equipment (d) Demonstrates safe work practices
10.3.2	Plant Production	10.3.2 Plant Production (a) Identifies the importance of plants in the food chain (b) Identifies the major parts and functions of plants • roots • stems • leaves • flowers	10.3.2 Plant Production (a) Identifies and describes basic plant processes • photosynthesis • respiration • transpiration (b) Lists plants of economic importance • fruit trees • ornamentals • cereals • vegetables • small fruits • trees	10.3.2 Plant Production (a) Identifies weed and pest control products (b) Performs basic maintenance on plant production equipment and tools

Grade 10	Grade 11	Grade 12
(c) Identifies local agricultural crops	(c) Describes the operation of a grain elevator	(c) Demonstrates safe work practices
(d) Germinates seeds under varied conditions	(d) Describes the reasons for crop rotation	
(e) Lists the purpose and types of fertilizers	(e) Grows and manages a variety of crops • in protective environments • in natural environments	
(f) Grows and maintains a crop • prepares the seed bed • seeds • cultivates • harvests • stores the crop	(f) Identifies dangers to crops • weather • weeds • insects	
	(g) Describes the purpose of crop insurance	

10.3.2 Livestock Production	10.3.3 Livestock Production	10.3.3 Livestock Production	10.3.3 Livestock Production
		(a) Develops a positive attitude toward livestock care and management	(a) Recognizes the basic principles of livestock nutrition
		(b) Identifies the needs of livestock • owner comfort • owner gain	(b) Identifies livestock digestive systems • ruminants • non-ruminants
		(c) Identifies the basic needs of livestock • food • water • shelter	(c) Identifies feed and feeding practices
		(d) Identifies classes of livestock	(d) Recognizes animal identification systems • tattooing • branding • ear tagging
		(e) Recognizes methods of handling and showing livestock	(e) Identifies animal health practices • castration • dehorning • vaccination • clipping / grooming • shearing • hoof care • parasite control

		Grade 10	Grade 11	Grade 12
			(f) Identifies jobs in the livestock industry	(f) Identifies animal production related industries (g) Identifies consumer buying practices of animal related products (h) Tends farm animals (i) Demonstrates safe work practices (j) Evaluates own completed work
10.4	Work Standards	10.4 **Work Standards** (a) Identifies examples of work standards • employer standards • food safety standards, procedures and practices	10.4 **Work Standards** (a) Appreciates the need for work standards (b) Demonstrates skills of time management (c) Demonstrates skills of task management	10.4 **Work Standards** (a) Demonstrates entry level work standards: • time management • task management • organizational skills (b) Maintains records (c) Evaluates own performance
10.5	Supplies Management	10.5 **Supplies Management** (a) Identifies appropriate supply management practices on a local farm	10.5 **Supplies Management** (a) Appreciates value of supply management practices (b) Identifies inventory control and storage practices on a local farm	10.5 **Supplies Management** (a) Demonstrates supply management • in-school projects • in-field projects (b) Evaluates own performance
10.6	Work Area Management	10.6 **Work Area Management** (a) Recognizes the need for regular care and maintenance (b) Maintains a safe, clean work area (c) Cleans tools and equipment after use	10.6 **Work Area Management** (a) Appreciates value of teamwork in agricultural production (b) Recognizes the need for teamwork in agricultural production (c) Maintains a safe, clean work area	10.6 **Work Area Management** (a) Identifies production goals (b) Works with others to achieve production goals (c) Evaluates own and team's performance (d) Maintains a safe, clean work area

INTEGRATED OCCUPATIONAL PROGRAM

OCCUPATIONAL COMPONENT

SCOPE AND SEQUENCE

Occupational Cluster: Agribusiness

Occupational Course: **HORTICULTURAL SERVICES**

Course Sequence: Horticultural Services 16-26-36

Notes: 1. Grade 10 focuses on equipment and tools use, propagation techniques, vegetable garden planting and flower bed maintenance.
Grade 11 focuses on lawn planting and maintenance, tree pruning, lab practices are greenhouse based.
Grade 12 focuses on spring flower beds, weed control, seeding plants, and floriculture techniques for entry-level students.

2. Students interested in horticulture should be encouraged to consider Agricultural Production and Agriculture Mechanics.

GENERAL OBJECTIVES

1. To develop students' personal and interpersonal skills.
2. To develop students' awareness of opportunities and working conditions in the horticulture industry.
3. To develop students' knowledge and skills of basic horticulture.
4. To enable students to obtain employment in a related occupation, and or, to articulate with another secondary program or post-secondary institution for further education.

Grade 10	Grade 11	Grade 12
10 WORK SKILLS		
10.1 Identification		
10.1.1 Job Scope	**10.1.1 Job Scope**	**10.1.1 Job Scope**
(a) Defines industry terms • horticulture • annual • biennial • perennial	(a) Describes and lists the knowledge and skills required for horticultural assistants	(a) Identifies entry-level jobs related to major job interest areas
(b) Identifies the scope of jobs performed by a horticultural assistant • garden centre assistant • park maintenance assistant • landscape garden assistant • grounds maintenance assistant • greenhouse worker • tree pruning assistant • florist assistant	(b) Identifies local horticultural and related businesses	(b) Performs a local job search
	(c) Identifies horticultural supplies materials used by local industry	(c) Identifies entrepreneurial opportunities

		Grade 10	Grade 11	Grade 12
10.1.2	Equipment, Tools and Supplies	10.1.2 **Equipment, Tools and Supplies** (a) Identifies major equipment, tools and supplies used in horticulture (b) Identifies equipment and tools according to function	10.1.2 **Equipment, Tools and Supplies** (a) Classifies equipment, tools and supplies according to function (b) Classifies equipment, tools and supplies according to category • hand tools • power tools • equipment • supplies	10.1.2 **Equipment, Tools and Supplies** (a) Labels horticulture equipment, tools, supply items (b) Inventories equipment, tools and supplies used by a local horticultural business
10.1.3	Plant Processes	10.1.3 Plant Processes (a) Identifies the basic needs of plants	10.1.3 Plant Processes (a) Describes the processes by which plants obtain their basic needs	10.1.3 Plant Processes (a) Identifies and lists common plant supplements
10.2	Equipment, Tools and Supplies Usage	10.2 **Equipment, Tools and Supplies Usage** (a) Identifies safety practices for use with equipment or tool items (b) Demonstrates safe use of basic equipment, tools and supplies	10.2 **Equipment, Tools and Supplies Usage** (a) Lists safety practices for use with each equipment or tool item (b) Demonstrates safe use of required equipment, tools and supplies	10.2 **Equipment, Tools and Supplies Usage** (a) Demonstrates safe use of equipment, tools and supplies to entry-level proficiency (b) Identifies and records maintenance needs of equipment and tools
10.2.1	Lawn Maintenance	10.2.1 Lawn Maintenance (a) Demonstrates safe use of lawn maintenance equipment • lawn mowers • edge trimmers • power rakes • lawn aerators (b) Identifies types of lawn fertilizers (c) Demonstrates sanitary refuse collection and disposal techniques (d) Demonstrates correct watering techniques	10.2.1 Lawn Maintenance (a) Demonstrates lawn care procedures • collects leaves • cuts lawn • edges lawn • prunes shrubs and trees • tills flower beds and gardens (b) Identifies procedures for sodding a lawn (c) Compares lawn fertilization methods	10.2.1 Lawn Maintenance (a) Demonstrates preparation and sodding of a section of lawn (b) Evaluates own performance

	Grade 10	Grade 11	Grade 12
10.2.2 Flower Bed Maintenance	10.2.2 Flower Bed Maintenance (a) Demonstrates the use of hand tools for maintaining flower beds: • shallow cultivation • shallow digging • garbage, dead plant and weak growth removal (b) Identifies seasonal procedures for flower beds (c) Designs a flower bed	10.2.3 Flower Bed Maintenance (a) Demonstrates appropriate flower bed seasonal preparation (b) Demonstrates design and planting procedures for a flower bed	10.2.3 Flower Bed Maintenance (a) Plans, plants and maintains a flower bed (b) Labels each flower bed (c) Evaluates own performance
10.2.3 Weeds and Weed Control	10.2.3 Weeds and Weed Control (a) Identifies weeds common to Alberta gardens (b) Describes the problems created by weeds (c) Demonstrates manual weed removal techniques	10.2.4 Weeds and Weed Control (a) Identifies weed control procedures: • manual • chemical	10.2.3 Weeds and Weed Control (a) Controls weeds: • manually • using prescribed chemicals (b) Demonstrates safe use practices (c) Evaluates own performance
10.2.4 Trees and Shrubs	10.2.4 Trees and Shrubs (a) Identifies five trees and five shrubs common to Alberta (b) Identifies the purpose of pruning (c) Identifies pruning techniques (d) Identifies pruning tools	10.2.4 Trees and Shrubs (a) Selects appropriate trees and demonstrates: • tree pruning • shrub pruning (b) Describes purpose and effects of pruning	10.2.4 Trees and Shrubs (a) Demonstrates procedures for pruning: • evergreens • hedges • fruit trees (b) Demonstrates safe use practices (c) Evaluates own performance
10.2.5 Bedding Plants	10.2.5 Bedding Plants (a) Identifies common bedding plants (b) Demonstrates procedures for growing bedding plants	10.2.5 Bedding Plants (a) Identifies common plant pathogens in community (b) Plans planting procedures for bedding plants	10.2.5 Bedding Plants (a) Prepares growing medium for bedding plants (b) Grows own bedding plants (c) Evaluates own performance

	Grade 10	Grade 11	Grade 12
10.2.6 House Plants	10.2.6 House Plants (a) Identifies equipment, tools and supplies used in plant propagation (b) Demonstrates correct seeding techniques (c) Demonstrates vegetative propagation • stem cutting • leaf cutting (d) Identifies six common house plants by: • common name • botanical name (e) Identifies care instructions for house plants (f) Demonstrates propagation and care tasks for house plants	10.2.6 House Plants (a) Demonstrates trans-planting of seedlings • spring sale packs • greenhouse benches (Fall) (b) Demonstrates transplanting rooted cuttings (c) Demonstrates re-potting of mature plants	10.2.6 House Plants (a) Demonstrates procedures for growing seasonal crops (b) Demonstrates correct care and treatment of house plants (c) Grows house plant(s) (d) Evaluates own performance
10.2.7 Greenhouse Management	10.2.7 Greenhouse Management (a) Identifies the function of a greenhouse (b) Identifies the factors that may be controlled in a greenhouse (c) Identifies tasks required to maintain a greenhouse (d) Identifies suitable locations for greenhouses	10.2.7 Greenhouse Management (a) Demonstrates ability to control greenhouse environment • light • moisture • temperature (b) Takes daily environmental readings • temperature • humidity • plant observations • pests noted	10.2.7 Greenhouse Management (a) Assists in maintaining a greenhouse to entry level standards (b) Demonstrates safe use practices (c) Evaluates own performance
10.2.8 Vegetable Gardening	10.2.8 Vegetable Gardening (a) Identifies common garden vegetables (b) Demonstrates procedures for growing a vegetable crop (c) Demonstrates planting of vegetable garden	10.2.8 Vegetable Gardening (a) Demonstrates harvesting techniques (b) Identifies appropriate vegetable storage conserving procedures	10.2.8 Vegetable Gardening (a) Identifies commercial methods of preparing vegetables

Grade 10	Grade 11	Grade 12
10.2.9 Floriculture	10.2.9 Floriculture	10.2.9 Floriculture
	(a) Defines floriculture	(a) Selects appropriate equipment, tools and supplies
	(b) identifies equipment, tools and supplies required for arranging • fresh flowers • dry flowers	(b) Prepare floriculture projects • dry floral arrangements • seasonal arrangements • silk flower arrangement • centrepiece • corsage • wreath
	(c) Demonstrates fresh flower arranging	(c) Evaluates projects
10.2.10 Sidewalk and Fence Care	10.2.10 Sidewalk and Fence Care	10.2.10 Sidewalk and Fence Care
		(a) Describes the purpose of sidewalk and fence care • appearance • security • safety
		(b) Demonstrates basic sidewalk and fence repair techniques
		(c) Demonstrates seasonal care of paths and sidewalks
10.3 Work Standards	10.3 Work Standards	10.3 Work Standards
	(a) Describes the reasons for standards	(a) Demonstrates accepted standards of horticulture
	(b) identifies related standards • aesthetic • appearance • operability • plant health • quality • public cleanliness	(b) Evaluates own performance monthly
	(c) Maintains standards set by teacher supervisor	
		(a) Lists standards used in horticulture
		(b) Demonstrates performance standards for entry level position
		(c) Evaluates own performance

		Grade 10		Grade 11		Grade 12
10.4	Supplies Management	10.4 **Supplies Management** (a) Identifies good supply management strategies • inventory control • storage • security	10.4 **Supplies Management** (a) Describes supply management practices used in local operations	10.4 **Supplies Management** (a) Maintains proper supply management practices (b) Maintains own performance
10.5	Work Area Management	10.5 **Work Area Management** (a) Identifies management strategies appropriate to each work site • school grounds • greenhouse • community garden or garden (b) Maintains a safe, clean work area	10.5 **Work Area Management** (a) Describes management strategies appropriate to each work site (b) Maintains a safe, clean work area	10.5 **Work Area Management** (a) Selects appropriate management strategies in each work site (b) Maintains a safe, clean work area (c) Evaluates own performance

INTEGRATED OCCUPATIONAL PROGRAM

OCCUPATIONAL COMPONENT

SCOPE AND SEQUENCE

Occupational Cluster: Business and Office Operations

Occupational Course: **BUSINESS SERVICES**

Course Sequence: Business Services 16-26-36

Note: 1. Business Services 16-26-36 is designed for students who are interested in working as shop assistants, sales clerks, sales representatives, courier-messenger services, receptionists, stock clerks and related jobs.

2. Students indicating an interest in business and office services should be encouraged to take the Business Services and the Office Services sequences.

3. Business Services may be given credit to students taking a cooperative work experience course.

GENERAL OBJECTIVES

1. To develop students' personal and interpersonal skills.
2. To develop students' awareness of opportunities and employment conditions in the field of business services.
3. To develop students' knowledge and skills for business and business related employment.
4. To enable students to obtain employment in a related occupation, and or to articulate with another secondary program or post-secondary institution for further education.

Grade 10	Grade 11	Grade 12
10 WORK SKILLS		
10.1 Identification		
10.1.1 **Job Scope**	10.1.1 **Job Scope** (a) Identifies the jobs related to business services	10.1.1 **Job Scope** (a) Describes the specific tasks performed by: • sales clerks • shop assistants • sales representatives • couriers • stock clerks	10.1.1 **Job Scope** (a) Lists descriptions of the business industry (b) Matches personal skills to business service jobs
10.1.2 Purpose of Business Services	10.1.2 Purpose of Business Services (a) Identifies the purpose and nature of business services (b) Defines related terms: • salesmanship • service • profit • production • merchandising • marketing • advertising	10.1.2 Purpose of Business Services (a) Describes marketing (b) Lists various types of products and services available in the marketplace	10.1.2 Purpose of Business Services (a) Explains the purpose of the business industry (b) Lists and describes segments of: • advertising • promotion • marketing

	Grade 10	Grade 11	Grade 12
		(c) Lists and matches product and service types with job opportunities	
10.1.3 Retailing	10.1.3 Retailing (a) Identifies the process of retailing/selling (b) Identifies and describes the retailing of • inventories • stock control • merchandising • display (c) Identifies basic sales techniques (d) Demonstrates courteous sales techniques (e) Identifies and describes • direct sales • person-to-person sales • supermarket sales	10.1.3 Retailing (a) Demonstrates a business-like approach to retailing (b) Identifies customer's body language (c) Reads customer's body language e.g., readiness to purchase (d) Identifies the procedures of selling • opening techniques • closing techniques (e) Identifies sales techniques used • for products • by stores (f) Identifies personal skills required for effective retailing (g) Identifies interpersonal skills required for effective retailing	10.1.3 Retailing (a) Describes sales techniques used for various products (b) Describes sales approaches used in different stores selling similar products (c) Lists and describes the relationship between selling goods and providing services (d) Describes different sales/service techniques • point of sale techniques • direct sales techniques • telephone sales techniques • party sales techniques (e) Identifies the skills required to sell a specific product group • food products • leisure products • personal services • personal assets • vehicles • homes • housewares
10.1.4 Advertising and Promotion	10.1.4 Advertising and Promotion (a) Defines "advertising" "promotion"	10.1.4 Advertising and Promotion (a) Compares the possible benefits of different types of advertising	10.1.4 Advertising and Promotion (a) Prepares an advertising campaign

	Grade 10	Grade 11	Grade 12
	(a) Describes the purpose of advertising (b) Identifies types of advertising used in business: • word of mouth • newspapers • magazines • radio • television • window displays • free gifts • coupons (c) Identifies promotional strategies and activities used in school: • poster ideas • school awards • school concerts • attracting new students	(a) Identifies types of promotions used by businesses (b) Creates a promotional window display to acceptable standards	(a) Uses promotional products and activities (b) Evaluates a promotional window display for effectiveness (c) Identifies techniques used to promote oneself: • appearance/personality • clothes • grooming • resume • business cards
10.1.5 Equipment, Tools and Supplies	10.1.5 **Equipment, Tools and Supplies** (a) Identifies the equipment, supplies and tools used in business activities	10.1.5 **Equipment, Tools and Supplies** (a) Describes the functions of: • cash registers • calculators • electronic	10.1.5 **Equipment, Tools and Supplies** (a) Describes the ways in which business information is: • received • stored • retrieved
10.1.6 Consumerism	10.1.6 Consumerism (a) Defines consumerism (b) Identifies various suppliers (c) Recognizes meaning of "buyer beware"	10.1.6 Consumerism (a) Describes the concepts of credit (b) Identifies factors/reasons in buying on credit (c) Lists and describes types of insurance: • life insurance • personal property • business property • public liability • automobile insurance	10.1.6 Consumerism (a) Accesses sources of consumer information (b) Identifies and compares sources of credit (c) Investigates costs associated with various types of insurance

		Grade 10	Grade 11	Grade 12
10.2	Equipment, Tools and Supplies Usage	10.2 **Equipment, Tools and Supplies Usage**	10.2 **Equipment, Tools and Supplies Usage**	10.2 **Equipment, Tools and Supplies Usage**
		10.2.1 Calculators and Cash Registers (a) identifies the parts of a common cash register (b) identifies the functions that cash registers may perform (c) identifies security procedures for handling cash, giving change (d) identifies and uses clear keys of a cash register (e) Demonstrates ability to perform four basic math functions on a calculator	10.2.1 Calculators and Cash Registers (a) Controls cash from register • identifies float • identifies coins • identifies operation of "key" invoices • calculates daily sales (b) Follows security procedures when accepting personal cheques (c) Identifies process for performing credit sales • under $50.00 • over $50.00 (d) Rolls coinage (e) Completes daily sales report	10.2.1 Calculators and Cash Registers (a) Operates a cash register (b) Controls cash handling (c) Records daily, weekly, monthly cash flow (d) Demonstrates security measures when processing cheques (e) Demonstrates correct procedure for credit card sales (f) Evaluates own performance
	10.2.2 Cashiers	10.2.2 Cashiers (a) identifies types of businesses that employ cashiers (b) identifies working conditions and employment opportunities	10.2.2 Cashiers (a) identifies the tasks performed by cashiers • supermarkets • department stores • boutiques (b) identifies the major components of a sales centre (c) identifies customer techniques • supermarkets • department stores • boutiques	10.2.2 Cashiers (a) Demonstrates cashier's duties in sales area (b) Demonstrates warmth in dealing with customers (c) Makes change correctly
	10.2.3 Telephone Techniques	10.2.3 Telephone Techniques (a) identifies appropriate telephone rules (b) identifies business telephone procedures	10.2.3 Telephone Techniques (a) Demonstrates telephone rules (b) Demonstrates warmth and courtesy	10.2.3 Telephone Techniques (a) Responds correctly to incoming callers (b) Takes messages

Grade 10	Grade 11	Grade 12
10.2.5 Business Communications (30S) (NOTE: For students taking Business Services and Office Services, see 10.2.5 in module previously viewed)	10.2.5 Business Communications (a) Identifies communication mechanisms and processes (b) Identifies correct procedures for self introduction during business contacts (c) Identifies the purpose of using a business card	10.2.5 Business Communications (a) Demonstrates alternative methods of introducing oneself (b) Describes how "goodwill" is created in business (c) Produces a letter of introduction	10.2.5 Business Communications (a) Demonstrates ability to introduce oneself (b) Demonstrates entry level ability to communicate verbally (c) Demonstrates ability to introduce a product to a potential buyer as performed by • shop sales clerks • sales representatives • stock clerks • couriers • cashiers (d) Describes the meaning of "buyer beware" (e) Evaluates own performance
10.2.6 Record Keeping (30S)	10.2.6 Record Keeping (a) Identifies the purpose of keeping records (b) Identifies basic methods of keeping records during information • typing • notes • files • computer software • typing (c) Completes basic banking forms	10.2.6 Record Keeping (a) Keeps a record of daily activities (b) Demonstrates basic record keeping (c) Completes banking forms (d) Demonstrates a simple filing system • alphabetic • numeric • subject • petty cash	10.2.6 Record Keeping (a) Demonstrates entry level record keeping skills (b) Demonstrates ability to maintain filing systems (c) Maintains basic banking records to entry level (d) Evaluates own performance

		Grade 10	Grade 11	Grade 12
10.3	Work Standards	10.3 **Work Standards** (a) Identifies various standards • safety • quality • efficiency (b) Works to standards	10.3 **Work Standards** (a) Lists standards used in individual activities/projects (b) Evaluates completed activities/products (c) Works to standards	10.3 **Work Standards** (a) Works to accepted standards (b) Demonstrates ability to follow instructions (c) Evaluates own performance
10.4	Supplies Management	10.4 **Supplies Management** (a) Identifies good supply management strategies • safety • security • cost • storage	10.4 **Supplies Management** (a) Demonstrates proper supply management practices	10.4 **Supplies Management** (a) Demonstrates entry-level supply management practices (b) Evaluates own performance
10.5	Work Area Management	10.5 **Work Area Management** (a) Recognizes the need for safe and sanitary work area management practices (b) Maintains a safe work area	10.5 **Work Area Management** (a) Lists and describes the characteristics of a housekeeping environment (b) Maintains a safe work area	10.5 **Work Area Management** (a) Prioritizes jobs in order of importance (b) Demonstrates leadership and initiative (c) Evaluates own performance

INTEGRATED OCCUPATIONAL PROGRAM

OCCUPATIONAL COMPONENT

SCOPE AND SEQUENCE

Occupational Cluster: Business and Office Operations

Occupational Course: **OFFICE SERVICES**

Course Sequence: Office Services 16-26-36

Notes: 1. Office Services 16-26-36 is designed for students who are interested in office work in private businesses or in public institutions.

2. Grade 10 focuses on equipment identification, introductory keyboarding, business calculations, filing, mail handling, telephone procedures and industry importance.
Grade 11 focuses on task identification, word processing, telephone use, writing business letters, mail handling and filing.
Grade 12 focuses on planning, organization, records, sales and personal skills. It provides skills to entry-level standards.

3. Students showing a strong interest in business should be encouraged to take the Business Services sequence in addition to Office Services.

GENERAL OBJECTIVES

1. To develop students' personal and interpersonal skills.
2. To develop students' awareness of opportunities and employment conditions in the field of office services.
3. To develop students' knowledge and skills in business and office practices.
4. To enable students to obtain employment in a related occupation, and/or to articulate with another secondary program or post-secondary institution for further education.

	Grade 10	Grade 11	Grade 12
10 WORK SKILLS			
10.1 Identification			
10.1.1 **Job Scope**	10.1.1 **Job Scope** Ext: Identifies and describes careers related to office services • receptionists • mail clerks • file clerks • typists • office assistants • word processing operators • clerical supervisors • telephone operators	10.1.1 **Job Scope** Ext: Describes the tasks performed in selected office services careers Ext: Identifies examples of businesses that use office services employees	10.1.1 **Job Scope** Ext: Lists current jobs/careers in office services Ext: Matches personal skills related to job available in office services
10.1.2 **Equipment, Tools and Supplies**	10.1.2 **Equipment, Tools and Supplies** Ext: Identifies equipment, tools and supplies in office service areas	10.1.2 **Equipment, Tools and Supplies** Ext: Investigates equipment, tools and supplies in an office	10.1.2 **Equipment, Tools and Supplies** Ext: Recognizes and records common office equipment and tools

		Grade 10	Grade 11	Grade 12
10.1.3	Purpose of Office Services	10.1.3 Purpose of Office Services (a) Identifies the purposes of office services • organizing • communicating • recording	10.1.3 Purpose of Office Services (a) Lists and describes types of office services performed • general offices • professional offices • office pools (b) Identifies specialized office services areas	10.1.3 Purpose of Office Services (a) Explains the role of office workers in the workplace (b) Lists and describes office services performed in various types of offices
10.2	Equipment, Tools and Supplies Usage	10.2 Equipment, Tools and Supplies Usage	10.2 Equipment, Tools and Supplies Usage	10.2 Equipment, Tools and Supplies Usage
10.2.1	Keyboarding NOTE: For students taking Office Services at Modular Semester Level 10.2.1 (c) applies to Modular Semester 1.	10.2.1 Keyboarding (a) Identifies basic keyboard [illegible] (b) Identifies and uses keyboard [illegible] (c) Identifies and uses keyboarding procedures (d) Identifies and uses keyboarding techniques • posture • hand reach • rhythm • accuracy (e) Identifies and uses [illegible] keyboard to type • words • sentences • paragraphs (f) Demonstrates and uses keyboard to type • [illegible] letters • envelopes • tables • memos	10.2.1 Keyboarding (a) Demonstrates basic keyboarding [illegible] • letters • reports (b) Demonstrates ability to perform basic proofreading and use spell checkers (c) Identifies components of a word processing system • software • hardware (d) Produces reports using word processing and [illegible] formats (e) Demonstrates ability to use [illegible] keys in conjunction with letters (f) Maintains a set [illegible] work styles	10.2.1 Keyboarding (a) Demonstrates speed, posture and [illegible] (b) Demonstrates basic touch keyboarding ability to entry level (c) Demonstrates proof reading and basic editing skills to entry level (d) Demonstrates basic ability to use word processor and/or memory system for (e) Demonstrates basic ability to use [illegible] (f) Produces a business letter and report within acceptable business standards (g) Creates and organizes [illegible] work projects and [illegible]

10.5	Work Standards	10.5	Work Standards	10.5	Work Standards	10.5	Work Standards
			(a) Identifies basic office work standards		(a) Demonstrates personal and safety hygiene practices		(a) Demonstrates entry level work standards
			(b) Completes basic office tasks		(b) Properly & systematically shapes documents		(b) Demonstrates ability to follow instructions
					(c) Completes tasks to standards		(c) Establishes own performance standards
10.6	Supplies Management	10.6	Supplies Management	10.6	Supplies Management	10.6	Supplies Management
			(a) Identifies supplies, maintenance and security procedures		(a) Identifies wholesale and retail suppliers of office supplies in community		(a) Demonstrates care of the use of supplies
					(b) Prepares requisition documents		(b) Maintains stock control
10.7	Work Area Management	10.7	Work Area Management	10.7	Work Area Management	10.7	Work Area Management
			(a) Describes organizational procedures		(a) Lists and describes the characteristics of a favourable environment		(a) Prioritizes tasks in order of importance
			(b) Identifies hazards in the work environment and how to avoid them		(b) Lists the factors that affect performance in relation to office tasks		(b) Demonstrates organizing and initiative
					(c) Maintains work area		(c) Demonstrates accuracy and efficiency in completing duties
							(d) Maintains a safe, clean work area
							(e) Establishes own performance standards

INTEGRATED OCCUPATIONAL PROGRAM

OCCUPATIONAL COMPONENT

SCOPE AND SEQUENCE

Occupational Cluster: Construction and Fabrication

Occupational Course: **BUILDING SERVICES**

Course Sequence: Building Services 16-26-36

Notes:
1. Building Services 16-26-36 provides students with opportunities to explore and experience job tasks performed by workers within the building industry.
2. At the Grade 10 level, basic building skills are developed. Hammers and hand tools are introduced, as primary activities.
3. At the Grade 11 level, emphasis shifts towards framing, scaffolding, roofing and finishing.
4. Grade 12 provides students with the opportunity to focus on one of several trades including carpentry and bricklaying, combined with increasing independence.
5. Students wishing to obtain their Level 1 in the building industry should be encouraged to take Construction Services.

GENERAL OBJECTIVES

1. To develop students' personal and interpersonal skills.
2. To develop students' awareness of opportunities and working conditions in services related to the building industry.
3. To develop students' knowledge and basic skills in a variety of services related to the building industry.
4. To prepare students for initial employment in a related occupation, and/or for articulation with further secondary programs, and secondary institution for further education.

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10 WORK SKILLS

10.1 Identification

10.1.1 Job Scope

10.1.1 Job Scope
- (a) Identifies the scope of the building service trades.
- (b) Describes the work of each trade.

10.1.1 Job Scope
- (a) Lists and describes the building job duties.
- (b) Identifies the work of each trade.

10.1.1 Job Scope
- (a) Identifies job duties of each key worker.
- (b) Matches services offered with appropriate trade or occupation.

- carpenter
- painter
- mason
- welder
- plumber
- electrician
- roofing worker
- mason
- labourer
- plasterer
- electrician
- painter
- tool engineer

		Grade 09		Grade 11		Grade 12	
		09.1 Rules and safety in the construction industry 09.2 Identifies apprenticeship and non-apprenticeship trades 09.3 Identifies opportunities in the sub-trades for: • full time employment • part time employment				09.1 Recognizes the need for further training in one or more sub-trades 09.2 Performs a job search for entry level positions in a selected sub-trade 09.3 Identifies local entrepreneurial opportunities in building services	
10.1.2	Equipment, Tools and Supplies	10.1.2	Equipment, Tools and Supplies 10.1 Identifies common power equipment and tools 10.2 Identifies common hand tools 10.3 Identifies safety equipment and tools 10.4 Identifies supply items commonly used in building trades • wood • shingles • brick • paint • cement • roofing and siding • drywall • piping • insulation	10.1.2	Equipment, Tools and Supplies 10.1 Lists and describes equipment and tools commonly used by each sub-trade 10.2 Lists and describes supply items commonly used in each sub-trade 10.3 Names each tool and describes its safe use and storage	10.1.2	Equipment, Tools and Supplies 10.1 Identifies and records condition of equipment and tools 10.2 Identifies and records shortages and needs of equipment and tools 10.3 Recognizes the necessity of wearing safety equipment
10.2	Equipment, Tools and Supplies Usage	10.2	Equipment, Tools and Supplies Usage 10.1 Demonstrates correct handling of equipment 10.2 Demonstrates correct handling of hand power tools 10.3 Demonstrates correct handling of hand tools	10.2	Equipment, Tools and Supplies Usage 10.1 Demonstrates ability to use, clean and maintain equipment and tools to ensure efficient use 10.2 Demonstrates safe use and storage	10.2	Equipment, Tools and Supplies Usage 10.1 Demonstrates entry level skills with: • hand tools • common power tools 10.2 Demonstrates basic equipment and tool maintenance 10.3 Demonstrates acceptable cleaning and storage procedures

10.3	Work Standards	10.3	**Work Standards** (a) Identifies the major categories of the trending trade (b) Demonstrates the ability to work to standards set by employers and supervisors	10.3	**Work Standards** (a) Demonstrates willingness to work to standards set by employers and trade (b) Demonstrates the ability to work to standards set by employers and supervisors	10.3	**Work Standards** (a) Demonstrates ability to conform to entry level standards in specific sub-trades (b) Demonstrates basic entry level standards of performance in specific sub-trades (c) Evaluates own performance
10.4	Supplies Management	10.4	**Supplies Management** (a) Identifies the importance of safe, secure and sanitary supply management practices (b) Uses supplies efficiently and effectively	10.4	**Supplies Management** (a) Describes the meaning of the terms "efficient" and "effective" supply management (b) Uses supplies efficiently and effectively	10.4	**Supplies Management** (a) Demonstrates ability to manage supplies in specific sub-trades (b) Uses supplies efficiently and effectively (c) Evaluates own performance

10.5	Work Area Management	10.5	Work Area Management	10.5	Work Area Management	10.5	Work Area Management

INTEGRATED OCCUPATIONAL PROGRAM

OCCUPATIONAL COMPONENT

SCOPE AND SEQUENCE

Occupational Cluster: Construction and Fabrication

Occupational Course: **CONSTRUCTION SERVICES**

Course Sequence: Construction Services 10, 20, 30

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10 WORK SKILLS

10.1 Identification

10.1.1 Job Scope

10.1.2 Equipment, Tools and Supplies

10.2	Equipment, Tools and Supplies Usage	10.2	Equipment, Tools and Supplies Usage	10.2	Equipment, Tools and Supplies Usage	10.2	Equipment, Tools and Supplies Usage

10.2	Work Standards	10.2	Work Standards	10.2	Work Standards	10.2	Work Standards
10.3	Supplies Management	10.3	Supplies Management	10.3	Supplies Management	10.3	Supplies Management
10.5	Work Area Management	10.5	Work Area Management	10.5	Work Area Management	10.5	Work Area Management

INTEGRATED OCCUPATIONAL PROGRAM

OCCUPATIONAL COMPONENT

SCOPE AND SEQUENCE

Occupational Cluster: Creative Arts

Occupational Course: **CRAFTS AND ARTS**

Course Sequence: Crafts and Arts 16,26,36

10 WORK SKILLS

10.1 Identification

10.1.1 Job Scope

10.1.2 Equipment, Tools and Supplies

10.2	Equipment, Tools and Supplies Usage	10.2	**Equipment, Tools and Supplies Usage**	10.2	**Equipment, Tools and Supplies Usage**	10.2	**Equipment, Tools and Supplies Usage**

		Grade 10		Grade 11		Grade 12	
10.3	Work Standards	10.3	**Work Standards** (a) Identifies work standards of crafts and arts specialties (b) Identifies personal standards in various crafts and arts	10.3	**Work Standards** (a) Identifies and describes standards of performance and practices appropriate to the field of crafts and arts (b) Works to meet standards	10.3	**Work Standards** (a) Demonstrates work standards appropriate to the workplace and/or marketplace (b) Evaluates own performance
10.4	Supplies Management	10.4	**Supplies Management** (a) Identifies personal arts and crafts supply management (b) Uses safe, secure and economical supply use procedures	10.4	**Supplies Management** (a) Demonstrates appropriate supply management practices (b) Identifies safe, secure arts supply procedures	10.4	**Supplies Management** (a) Demonstrates entry level supply management techniques (b) Evaluates own performance
10.5	Work Area Management	10.5	**Work Area Management** (a) Identifies and uses appropriate procedures in work area for safe arts and crafts (b) Maintains a safe work area	10.5	**Work Area Management** (a) Demonstrates effective work area management (b) Maintains a safe "real" work place	10.5	**Work Area Management** (a) Demonstrates leadership and initiative (b) Works with others to maintain a safe clean work area (c) Evaluates own work performance

INTEGRATED OCCUPATIONAL PROGRAM

OCCUPATIONAL COMPONENT

SCOPE AND SEQUENCE

Occupational Cluster: Creative Arts

Occupational Course: **TECHNICAL ARTS**

Course Sequence: Technical Arts 10, 20, 30

GENERAL OBJECTIVES

10 WORK SKILLS

10.1 Identification

10.1.1 Job Scope

10.1.2 Equipment, Tools and Supplies

10.1.2 Equipment, Tools and Supplies

10.1.2 Equipment, Tools and Supplies

10.1.2 Equipment, Tools and Supplies

10.2 Equipment, Tools and Supplies Usage

10.2 Equipment, Tools and Supplies Usage

10.2 Equipment, Tools and Supplies Usage

10.2 Equipment, Tools and Supplies Usage

Set Construction
- demonstrates correct and safe use of tools and equipment
- works with a variety of set construction materials
  - wood
  - styrofoam
  - plastic
  - paint
  - textiles
  - metals
  - wire
  - plaster
  - papier mache

10.3	Work Standards	10.3	**Work Standards**	10.3	**Work Standards**	10.3	**Work Standards**
10.4	Supplies Management	10.4	**Supplies Management**	10.4	**Supplies Management**	10.4	**Supplies Management**
10.5	Work Area Management	10.5	**Work Area Management**	10.5	**Work Area Management**	10.5	**Work Area Management**

INTEGRATED OCCUPATIONAL PROGRAM

OCCUPATIONAL COMPONENT

SCOPE AND SEQUENCE

Occupational Cluster: Natural Resources

Occupational Course: **NATURAL RESOURCE SERVICES**

Course Sequence: Mandatory and Hospitality

Equipment, Tools and Supplies

Equipment, Tools and Supplies

Equipment, Tools and Supplies

Equipment, Tools and Supplies

Equipment Tools and Supplies Usage

Equipment, Tools and Supplies Usage

Equipment, Tools and Supplies Usage

Equipment, Tools and Supplies Usage

	Grade 10	Grade 11	Grade 12
10.2.1.3 Derrickhand	10.2.1.3 Derrickhand	10.2.1.3 Derrickhand	10.2.1.3 Derrickhand
	(a) Identifies tasks performed by a derrickhand	(a) Lists and describes tasks performed by a derrickhand	(a) Demonstrates basic knowledge and skills of a derrickhand
	(b) Identifies safe work practices	(b) Demonstrates competency in climbing and working in high places	(b) Demonstrates safe practices in each task area
	(c) Identifies process of guiding pipe	(c) Demonstrates awareness of techniques used to guide and steady pipe	(c) Demonstrates willingness to perform other assigned tasks
	(d) Identifies process for steadying pipe during connection	(d) Identifies the duties related to tending pumps	(d) Demonstrates awareness of mud quality controls and techniques
	(e) Identifies the nature and purpose of mud	(e) Demonstrates ability to perform general maintenance tasks	(e) Demonstrates ability to complete mud quality reports
		(f) Recognizes the controls used to assess mud quality	(f) Demonstrates ability to work with others
		(g) Identifies the procedure for recording mud quality	(g) Evaluates own performance
10.2.2 Forestry Industry	10.2.2 Forestry Industry	10.2.2 Forestry Industry	10.2.2 Forestry Industry
10.2.2.1 Forestry Crew Worker	10.2.2.1 Forestry Crew Worker	10.2.2.1 Forestry Crew Worker	10.2.2.1 Forestry Crew Worker
	(a) Identifies tasks performed by a crew worker	(a) Lists and describes tasks performed by a crew worker	(a) Demonstrates basic skills of a crew worker
	(b) Defines the following terms: • ecology • compassing • timber • seeding • planting • silviculture	(b) Demonstrates basic woodsmanship	(b) Passes a defensive driving course
	(c) Identifies bush survival (woodsmanship) techniques	(c) Demonstrates safe use and care of hand and power tools	(c) Passes a radio operator's licence course
	(d) Identifies safe use and care of power equipment	(d) Demonstrates ability to drive a snow-mobile, a four-wheel drive vehicle, and an all-terrain vehicle	(d) Participates in campsite construction
	(e) Identifies special safety practices in forestry	(e) Demonstrates ability to use a compass	(e) Demonstrates basic ability to fight forest fires
	(f) Demonstrates ability to plant seedlings	(f) Participates in communication training (radio operator's license)	(f) Demonstrates entry-level duties performed by survey crew workers

		Grade 10	Grade 11	Grade 12
			(g) Identifies tasks performed by survey crew workers	(g) Demonstrates safe practices in all tasks
			(h) Identifies tasks performed by forestry firefighters	(h) Demonstrates ability to work with others
			(i) Identifies tasks performed in campsite construction	(i) Evaluates own performance
10.2.3	Mining Industry	10.2.3 Mining Industry	10.2.3 Mining Industry	10.2.3 Mining Industry
10.2.3.1	Mining and Quarrying	10.2.3.1 Mining and Quarrying (a) Identifies tasks performed by entry-level workers in industry (b) Demonstrates ability and temperament to work in the industry • surface worker • underground worker (c) Demonstrates ability to handle common hand and power tools (d) Identifies special equipment used in mining and quarrying operations • above ground • below ground (e) Identifies resources obtained from mines and quarries (f) Identifies special safety practices in mining and quarrying	10.2.3.1 Mining and Quarrying (a) Demonstrates ability to perform high energy manual tasks (b) Demonstrates basic ability to use and control hydraulic machines and hoses (c) Demonstrates basic ability to operate cutting and handling machines (d) Demonstrates ability to load and unload materials (e) Demonstrates safe practices in all areas	10.2.3.1 Mining and Quarrying (a) Demonstrates ability appropriate to entry level jobs in the industry (b) Demonstrates willingness to listen, look and learn (c) Demonstrates entry-level safe practices (d) Demonstrates ability to work with others (e) Evaluates own performance
10.3	**Work Standards**	10.3 **Work Standards** (a) Identifies work standards appropriate to each industry and each group of jobs (b) Maintains standards set by teacher/supervisor	10.3 **Work Standards** (a) Demonstrates willingness to work to accepted standards in each area (b) Maintains standards set by teacher/supervisor	10.3 **Work Standards** (a) Demonstrates ability to conform to entry-level standards in specific job areas (b) Evaluates own performance

		Grade 10		Grade 11		Grade 12	
10.4	**Supplies Management**	10.4	**Supplies Management** (a) Identifies importance of safe, secure and sanitary supply management	10.4	**Supplies Management** (a) Lists and describes benefits of efficient and effective supply management (b) Recognizes the purpose and process of an inventory	10.4	**Supplies Management** (a) Demonstrates ability to use and conserve supplies (b) Evaluates own performance
10.5	**Work Area Management**	10.5	**Work Area Management** (a) Identifies procedures to care for and manage work areas in different job areas (b) Recognizes the need for a safe work area (c) Maintains a safe work area	10.5	**Work Area Management** (a) Lists and describes work area management in different job areas (b) Maintains a safe work area	10.5	**Work Area Management** (a) Demonstrates leadership and initiative (b) Works with others to maintain standards (c) Maintains a safe work area (d) Evaluates own performance

INTEGRATED OCCUPATIONAL PROGRAM

OCCUPATIONAL COMPONENT

SCOPE AND SEQUENCE

Occupational Cluster: Personal and Public Services

Occupational Course: **CHILD AND HEALTH CARE SERVICES**

Course Sequence: Child and Health Care Services 16-26-36

Notes: 1. Grade 10 focuses on career field introduction, baby-sitter skills, basic adult care tasks and human needs.
Grade 11 focuses on life cycle changes, child care, adult home services and the human body.
Grade 12 focuses on refining skills and reviewing ethical concerns and personal viewpoints.

GENERAL OBJECTIVES

1. To develop students' personal and interpersonal skills.
2. To develop students' awareness of opportunities and working conditions in the child and health care field.
3. To develop students' knowledge and skills in the basic care of children and the basic care of the sick, the aged and the infirm.
4. To enable students to obtain employment in a related occupation, and/or to articulate with another secondary program or post-secondary institution for further education.

	Grade 10	Grade 11	Grade 12
10. WORK SKILLS			
10.1 Identification			
10.1.1 **Job Scope**	10.1.1 **Job Scope** (a) Identifies the jobs related to child and health care: • residential aide • nursing assistant • baby-sitter • day-care assistant (b) Describes child and health care services	10.1.1 **Job Scope** (a) Lists and categorizes related jobs available in the community (b) Describes the major characteristics of • child care • health care	10.1.1 **Job Scope** (a) Identifies the opportunities for personal growth and development within the related areas (b) Demonstrates the ability to relate specific actions to either child care or health care
10.1.2 Roles and Responsibilities	10.1.2 Roles and Responsibilities (a) Identifies the roles and responsibilities of each related job (b) Identifies the personal qualities required for each related job, e.g., sensitivity to needs of people from various cultures	10.1.2 Roles and Responsibilities (a) Lists and describes roles and responsibilities of each related job	10.1.2 Roles and Responsibilities (a) Identifies a related job of primary interest (b) Lists the roles and responsibilities of primary interest job

		Grade 10	Grade 11	Grade 12
10.1.3	Life Cycle	10.1.3 Life Cycle (a) Describes the life cycle (b) Identifies the major stages in the life cycle (c) Identifies the terms: • pediatrics • geriatrics	10.1.3 Life Cycle (a) Lists and describes people's needs at each stage of the life cycle (b) Identifies the concept of hierarchy of need (c) Identifies the needs of: • infants (1-18 months) • toddlers (19-36 months) • pre-schoolers (3-5 years) • school-aged (6-12 years) • teenaged (13-19 years)	10.1.3 Life Cycle (a) Explains the needs of people at each major stage of their life cycle (b) Compares and contrasts the needs of pediatrics with geriatrics
10.2	**Equipment, Tools and Supplies Usage**	10.2 **Equipment, Tools and Supplies Usage**	10.2 **Equipment, Tools and Supplies Usage**	10.2 **Equipment, Tools and Supplies Usage**
10.2.1	Child Care Safety	10.2.1 Child Care Safety (a) Identifies safety regulations related to children's: • toys • clothing • cribs • car seats • food products (b) Identifies toiletry, diapers and other baby care products (c) Identifies what makes a child's toy, clothing, crib and other products safe	10.2.1 Child Care Safety (a) Lists and describes safety regulations related to children's manufactured products (b) Lists and compares cost and quality of special children's toiletries (c) Identifies safety-in-the-home measures when young children are present (d) Identifies related consumer guides	10.2.1 Child Care Safety (a) Demonstrates to children safe use of products (b) Demonstrates use of related consumer guides (c) Evaluates own performance
10.2.2	First Aid	10.2.2 First Aid (a) Identifies basic first aid practices (b) Participates in a recognized first aid course	10.2.2 First Aid (a) Demonstrates: • basic first aid • CPR (b) Passes a recognized first aid course	10.2.2 First Aid (a) Demonstrates ability to respond to emergencies and perform cardiopulmonary resuscitation (b) Upgrades first aid qualifications

	Grade 10	Grade 11	Grade 12
	(c) Identifies health safety precautions, practices and standards (d) Identifies the use of fire, police, ambulance and other local emergency telephone numbers	(c) Lists health safety precautions, practices and standards	(c) Demonstrates ability to follow health safety precautions, practices and standards (d) Evaluates own performance
10.2.3 Child Care Principles	10.2.3 Child Care Principles (a) Identifies the basic principles of child care: • physical health • emotional health • mental health (b) Identifies the stages of "normal" child growth and development: • physical • mental • social	10.2.3 Child Care Principles (a) Lists and describes factors relating to the physical, emotional and mental health of children (b) Identifies, lists and describes the physical appearance of children at various ages: • at birth • one week • one month • six months • eighteen months (c) Discusses how self-concept develops	10.2.3 Child Care Principles (a) Demonstrates an awareness of the basic principles of child care (b) Demonstrates an awareness of the basic principles of child development (c) Recognizes the causes of genetic and birth defects: • genes • mongolism • Rh problems • hemophilia
	(c) Identifies behavioural stages of children (d) Identifies the attitudes considered appropriate for child care workers: • safety consciousness • respect and care for children • sanitation consciousness • positive self-image (e) Identifies and recognizes signs of child abuse	(d) Identifies: • legislation relating to child abuse • legal rights and responsibilities	

	Grade 10	Grade 11	Grade 12
	(f) Identifies the ethics of baby-sitting • reliability • punctuality • enjoys children • personal cleanliness • positive role model • good personal health • well mannered • businesslike • takes pride in work (g) Identifies the role of play in the life of a child		
10.2.4 Practical Child Care	10.2.4 Practical Child Care (a) Identifies the routine tasks performed by baby-sitters • heats formula • prepares snacks • feeds infant • feeds child • changes diapers	10.2.4 Practical Child Care (a) Lists and describes • safe baby-sitting practices • how to cope with emergencies	10.2.4 Practical Child Care (a) Maintains a record of baby-sitting jobs performed
	(b) Demonstrates ability to perform routine tasks	(b) Demonstrates effective child care while baby-sitting	(b) Requests letters of reference from parents of babies cared for
	(c) Identifies procedures for coping with emergencies • emergency phone numbers • fire safety exit routes • emergency contact persons • first aid • coping with callers	(c) Identifies and prepares basic foods suitable for children (1 month - 10 years)	(c) Demonstrates correct baby-sitting practices
	(d) Identifies safe practices while baby-sitting • inspects for hazards • no friends • no smoking • no strangers • no unlocked doors • follows instructions • limits television watching • plays quiet games • reads non-violent stories	(d) Demonstrates game playing with toddlers	(d) Operates/works in a school or community baby-sitting service
	(e) Identifies safe practices for going home	(e) Defines "parenting"	(e) Evaluates own performance

	Grade 10	Grade 11	Grade 12
	(f) Passes a baby-sitter's safety course	(f) Identifies and lists local day-care centres	(f) Demonstrates entry-level ability to prepare meals appropriate for children of different ages (1 month - 10 years)
	(g) Identifies and demonstrates use of books, games and toys suitable for • infants (1-18 months) • toddlers (19-36 months) • pre-schoolers (3-5 years) • school-age (6-10 years)	(g) Investigates and describes the activities in a local day-care or after-hours centre	(g) Describes and demonstrates the process of "child-proofing" a room
	(h) Creates a game for a 5-year-old		(h) Describes appropriate "reading" material for a 5-year-old (i) Discusses the topic, "What are the characteristics of effective parenting?" (j) Demonstrates effective parenting skills (k) Discusses the importance of parenting on child care and development (l) Discusses the impact of day-care attendance on child development
10.2.5 Adult Basic Health Care	10.2.5 Adult Basic Health Care (a) Identifies basic types of adult health care services, jobs: • residential aides • institutional aides • private, part-time aides (b) Identifies major functions of an aide: • encourages person's independence • respects person's rights and responsibilities • assists person to meet basic needs	10.2.5 Adult Basic Health Care (a) Recognizes common conditions of the elderly or disabled adult (b) Communicates in a positive manner	10.2.5 Adult Basic Health Care (a) Demonstrates entry-level abilities to provide adults with assistance in daily living (b) OPTIONS Demonstrates the ability to perform special tasks on instructions from medical authorities: • provides special foot care • assists with oxygen giving equipment

	Grade 10	Grade 11	Grade 12
	(c) Practises hygiene and sanitation • personal • public • patient	(c) Recognizes the difference between physical and mental infirmities	(c) Explores and describes feelings about aging, death and dying
	(d) Identifies lifting and transferring procedures for immobile persons	(d) Demonstrates correct techniques of lifting and transferring	(d) Recognizes the grieving process
	(e) Identifies correct lifting techniques	(e) Demonstrates ability to perform aids to daily living • body care and functions • dressing assistance • grooming • exercise assistance	(e) Assists with palliative care
	(f) Demonstrates the basic care of a wheelchair bound person	(f) Takes, reads and records body temperature	(f) Evaluates own performance
	(g) Identifies the basic activities required to assist with daily living • mouth care • nail care • hair care • facial grooming • dressing • bowel and bladder evacuations • basic exercises	(g) Identifies special tasks that need to be performed when caring for elderly and or immobile persons	
		(h) Defines "palliative" care	
		(i) Identifies the vital signs	
10.2.6 Home Duties	10.2.6 Home Duties	10.2.6 Home Duties	10.2.6 Home Duties
	(a) Recognizes additional homemaking duties to be performed	(a) Makes an unoccupied bed	(a) Maintains a safe, sanitary home environment
		(b) Makes an occupied bed	(b) Maintains a caring, pleasing home environment
		(c) Demonstrates ability to use bed support devices	(c) Assists homebound person with recreational interests
		(d) Demonstrates ability to perform a bed bath	(d) Evaluates own performance
		(e) Demonstrates ability to perform a back rub	

		Grade 10	Grade 11	Grade 12
10.2.7	Anatomy and Physiology	10.2.7 Anatomy and Physiology (a) Defines the terms "anatomy" and "physiology" (b) Names the major systems of the body (c) Defines "body organ" and "body tissue"	10.2.7 Anatomy and Physiology (a) Identifies the major organs that form each body system	10.2.7 Anatomy and Physiology (a) Identifies two diseases that may be associated with each major system of the body
10.2.8	Nutrition	10.2.8 Nutrition (a) Defines "nutrition" (b) Recognizes the need for a well-balanced diet (c) Identifies the four food groups (d) Identifies basic types of approved special diets	10.2.8 Nutrition (a) Describes the role of proper nutrition for the very young and very old (b) Identifies guides for preparing children's meals (e.g., *Canada's Food Guide*) (c) Identifies the four major food groups • milk • meat • cereal • fruit (d) Identifies preparation procedures and content of special diets	10.2.8 Nutrition (a) Lists foods that may be prepared for • cardiovascular illness • no-salt diets • high-fibre diets • balanced fluid diets • high protein-high energy diets • dental soft diets • food allergies (b) Demonstrates ability to prepare selected diet meals
10.3	**Work Standards**	10.3 **Work Standards** (a) Identifies municipal and provincial standards/regulations for: • day-care centres • residential aides (b) Performs tasks to standards	10.3 **Work Standards** (a) Identifies and describes standards for: • day-care centres • nursing homes (b) Identifies problems related to standards in child and health care	10.3 **Work Standards** (a) Identifies the procedures for opening and operating a: • day-care • baby-sitting service • residential aide service (b) Describes the standards that must be used in a care giving operation

		Grade 10	Grade 11	Grade 12
10.4	**Supplies Management**	10.4 **Supplies Management** (a) Identifies how supply items are managed in child and health care operations • hazardous • non-hazardous (b) Identifies common supply items found in child and health care operations	10.4 **Supplies Management** (a) Describes supply management practices used in a local child or health care facility	10.4 **Supplies Management** (a) Demonstrates appropriate supply management techniques (b) Evaluates own performance
10.5	**Work Area Management**	10.5 **Work Area Management** (a) Identifies the techniques of maintaining a safe, sanitary and pleasant working environment	10.5 **Work Area Management** (a) Describes the routine operations of keeping a child or health care facility safe, sanitary and pleasant	10.5 **Work Area Management** (a) Demonstrates the ability to maintain a facility that meets the needs of those receiving care (b) Demonstrates leadership and initiative (c) Evaluates own performance

INTEGRATED OCCUPATIONAL PROGRAM

OCCUPATIONAL COMPONENT

SCOPE AND SEQUENCE

Occupational Cluster: Personal and Public Services

Occupational Course: **ESTHETOLOGY**

Course Sequence: Esthetology 16-26-36

Notes: 1. Esthetology 16-26-36 is designed for students who are interested in the personal grooming occupations. This sequence of courses enables students to select from a number of related jobs.

2. Students indicating a strong interest in the personal grooming occupations should be encouraged to take the Hair Care sequence in addition to the Esthetology sequence.

GENERAL OBJECTIVES

1. To develop students' personal and interpersonal skills.
2. To develop students' awareness of opportunities and employment conditions in the personal services, personal grooming industry.
3. To develop students' knowledge and skills in the field of esthetology -- facial and nail care -- and in related jobs.
4. To enable students to obtain employment in a related occupation, and/or to articulate with another secondary program or post-secondary institution for further education.

	Grade 10	Grade 11	Grade 12
10. WORK SKILLS			
10.1 Identification			
10.1.1 **Job Scope**	10.1.1 **Job Scope** (a) Identifies the scope of related jobs: • beauty advisor • cosmetic sales • beauty shop assistant • beauty product representative • manicurist • pedicurist • make-up artist • cosmetician • entrepreneur	10.1.1 **Job Scope** (a) Describes and lists the knowledge and skills required for each related job (b) Identifies types of esthetology operations available in the community (c) Recognizes advantages and disadvantages of being an esthetologist	10.1.1 **Job Scope** (a) Identifies jobs of major interest (b) Identifies local job opportunities in major area of interest

	Grade 10	Grade 11	Grade 12
10.1.2 **Equipment, Tools and Supplies**	10.1.2 **Equipment, Tools and Supplies** (a) Identifies and describes major items of grooming equipment and tools used in esthetology (b) Locates storage for major items of equipment, tools and supplies	10.1.2 **Equipment, Tools and Supplies** (a) Takes inventory of major items • equipment • tools • supplies (b) Returns equipment, tools and supplies in correct storage areas (c) Identifies the components and cost of a basic kit	10.1.2 **Equipment, Tools and Supplies** (a) Identifies and records condition of • equipment and tools
10.2 **Body Systems and Structures**	10.2 **Body Systems and Structures**	10.2 **Body Systems and Structures**	10.2 **Body Systems and Structures**
10.2.1 The Skin	10.2.1 The Skin (a) Identifies basic structure and functions of the skin (b) Describes the function of the upper layer of the skin	10.2.1 The Skin (a) Identifies and describes major structures and functions of skin (b) Identifies and describes • skin lesions • skin disorders • skin diseases (c) Identifies types of skin (d) Recognizes treatable/non-treatable skin conditions (e) Lists and describes nature of treatments for treatable skin conditions	10.2.1 The Skin (a) Labels a diagram of basic structures of the skin (b) Demonstrates treatments for treatable skin conditions (c) Demonstrates ability to identify skin types and makes suggestions for treatment of skin conditions
10.2.2 Facial Structures	10.2.2 Bones of the Face (a) Identifies the major bones of the head, face and neck (b) Locates major bones of the face	10.2.2 Muscles and Nerves of the Face (a) Identifies the major muscles of the face and neck • forehead • eye area • nasal area • mouth area (b) Recognizes the function of nerves	10.2.2 Nerves, Bones and Muscles of the Face (a) Labels a diagram with the major muscles and bones of the face and neck (b) Describes the function of facial nerves

		Grade 10	Grade 11	Grade 12
		(c) Describes why knowledge of facial bones, muscles and nerves is necessary	(c) Recognizes the relationship between body systems/ structures and massage	
10.2.3	Facial Body Shapes	10.2.3 Facial Shapes (a) Defines terms related to facial shapes (b) Identifies basic facial shapes (c) Identifies characteristics of each basic facial shape (d) Identifies facial proportions (e) Describes the meaning of "balance" in facial proportions (f) Identifies and describes the "ideal" facial shape	10.2.3 Facial Shapes (a) Defines terms related to facial profiles (b) Identifies characteristics of basic facial profiles (c) Describes cosmetic techniques used to achieve balance in facial proportion (d) Identifies cosmetic techniques used to minimize and maximize facial features	10.2.3 Facial Shapes (a) Identifies and describes an individual's • body shape • facial shape • facial profile • facial proportions (b) Identifies and records suggested techniques to achieve • facial balance • "ideal" facial shape • maximized features • minimized features
10.3	**Equipment, Tools and Supplies Usage**	10.3 **Equipment, Tools and Supplies Usage**	10.3 **Equipment, Tools and Supplies Usage**	10.3 **Equipment, Tools and Supplies Usage**
10.3.1	Draping	10.3.1 Draping (a) Uses appropriate procedure to prepare patron prior to draping (b) Identifies appropriate draping process	10.3.1 Draping (a) Demonstrates patron preparation prior to draping (b) Demonstrates draping for a facial	10.3.1 Draping (a) Demonstrates appropriate patron contact when preparing to drape a customer (b) Evaluates own performance
10.3.2	Facial Care	10.3.2 Facial Care (a) Identifies basic stages of facial care	10.3.2 Facial Care (a) Lists and describes basic stages of facial care	10.3.2 Facial Care (a) Identifies and records skin types

Grade 10	Grade 11	Grade 12
Cleansing	Cleansing	Cleansing
(b) Identifies purpose of cleansing the face	(b) Lists and describes common products used for: • surface cleansing • deep cleansing	(b) Demonstrates cleansing of skin: • surface cleansing • deep cleansing
(c) Identifies methods of cleansing the face	(c) Identifies skin types: • oily • dry • combination	(c) Selects and prepares supplies for cleansing different types of skin
(d) Demonstrates facial cleansing: • surface cleansing • deep cleansing	(d) Applies deep cleansing agents	(d) Demonstrates use of facial masks, and facial scrubs
(e) Identifies products used for deep cleansing	(e) Removes deep cleansing agents	
Toning	Toning	Toning
(f) Identifies the procedure used to tone the face	(f) Lists reasons for massaging the face	(e) Demonstrates facial massage: • selects equipment, tools and supplies • drapes patron • performs manipulation • applies hot/cold towels • applies astringent/toner
(g) Defines and describes basic massage movements	(g) Describes the purpose of emollients	(f) Identifies and describes functions of astringents/toners
(h) Demonstrates basic massage movements	(h) Applies an emollient (i) Demonstrates the basic massage movements (j) Applies hot/cold towels (k) Applies astringent/toner	
Nourishing	Nourishing	Nourishing
(i) Identifies and describes the moisturizing process	(l) Lists reasons for moisturizing (m) Applies moisturizer	(g) Demonstrates ability to identify skin type and select appropriate nourishing agent
Protecting	Protecting	Protecting
(j) Describes the purposes of makeup (k) Identifies basic makeup cosmetics (l) Identifies basic implements used to apply makeup	(n) Recognizes how to match cosmetics to skin colour (o) Selects and applies makeup: • foundation • eye makeup • blushes • lipstick • powder	(h) Demonstrates ability to perform a complete makeup application (i) Demonstrates makeup techniques for: • day wear • evening wear • special events

	Grade 10	Grade 11	Grade 12
			Facial Service (j) Demonstrates ability to provide complete facial service (k) Maintains sanitary conditions throughout service (l) Evaluates own performance at each stage of facial care procedure
10.3.3 Eyebrow Arching	10.3.3 Eyebrow Arching (a) Identifies arching as a complementary service (b) Explains purpose of eyebrow arching	10.3.3 Eyebrow Arching (a) Lists supplies and equipment required for arching (b) Describes different eyebrow styles (c) Uses pencil to outline eyebrows (d) Uses tweezers to arch eyebrows (e) Identifies alternative arching methods	10.3.3 Eyebrow Arching (a) Identifies, selects and prepares an eyebrow arching trolley (b) Demonstrates alternative arching methods • waxing • hot • cold (c) Maintains sanitary conditions throughout service (d) Evaluates own performance
10.3.4 False Lashes	10.3.4 False Lashes (a) Identifies false lash application as a complementary service	10.3.4 False Lashes (a) Describes the function/effects of lash applications (b) Applies false eyelashes	10.3.4 False Lashes (a) Identifies types of false lashes in local supply houses (b) Demonstrates application of individual lashes and strip lashes (c) Observes sanitary procedures (d) Evaluates own performance
10.3.5 Facial Design	10.3.5 Facial Design (a) Discusses the relationship between personality and facial appearance	10.3.5 Facial Design (a) Uses facial outline to practise facial designs	10.3.5 Facial Design (a) Demonstrates ability to customize facial designs (b) Evaluates own performance

	Grade 10	Grade 11	Grade 12
10.3.6 Manicure	10.3.6 Manicure (a) Defines manicure (b) Describes the nail (c) Identifies major parts of the nail (d) Recognizes basic nail shapes • female • male (e) Performs a plain manicure: • prepares manicure table • identifies tools and supplies • files nails to shape • cleans nails • pushes back cuticle • applies nail polish (f) Uses sanitary practices	10.3.6 Manicure (a) Labels a diagram of the nail and its surrounding tissues (b) Identifies and describes common nail disorders and diseases (c) Identifies and describes salon treatments for nail disorders (d) Recognizes treatable and non-treatable conditions (e) Performs oil manicures (f) Maintains sanitary practices throughout a manicure	10.3.6 Manicure (a) Demonstrates complete preparation and performance of basic manicures (b) Identifies and describes the process of hand and arm massage as a complementary service (c) Defines hand and arm massage (d) Labels a diagram of the nail and its surrounding tissues (e) Demonstrates use of hand waxing equipment and supplies (f) Ensures that sanitary practices are followed throughout a manicure
10.3.7 Nail Repair/ Replacement	10.3.7 Nail Repair/Replacement (a) Identifies nail repair as a complementary service	10.3.7 Nail Repair/Replacement (a) Demonstrates the process of nail repair	10.3.7 Nail Repair/Replacement (a) Identifies and describes a nail repair process (b) Identifies and describes nail replacement processes: • full nails • tips (c) Demonstrates nail repair and replacement (d) Uses safe and sanitary practices
10.3.8 Nail Art	10.3.8 Nail Art (a) Identifies nail art as a complementary service	10.3.8 Nail Art (a) Identifies and describes supplies used in nail art (b) Demonstrates basic nail art (c) Designs creative nail art	10.3.8 Nail Art (a) Demonstrates design and application of nail art (b) Applies strips, jewels and other materials to enhance nail appearance

		Grade 10	Grade 11	Grade 12
10.3.9	Pedicure		10.3.9 Pedicure (a) Defines meaning of pedicure procedure (b) Identifies tools (c) Selects and sets up tools (d) Identifies steps in pedicure	10.3.9 Pedicure (a) Demonstrates basic pedicure technique
10.3.10	Salesmanship	10.3.10 Salesmanship (a) Identifies importance of sales and service in the grooming industry	10.3.10 Salesmanship (a) Describes the types of services and sales performed by esthetologists (b) Performs sales activities	10.3.10 Salesmanship (a) Identifies the characteristics of effective salespersons (b) Demonstrates appropriate sales activities
10.4	**Work Standards**	10.4 **Work Standards** (a) Identifies related sanitary regulations (b) Identifies methods of infection control used in professional salons	10.4 **Work Standards** (a) Demonstrates personal and public hygiene practices (b) Demonstrates correct use of wet and dry sterilizers	10.4 **Work Standards** (a) Demonstrates entry-level standards in each task area (b) Evaluates own performance
10.5	**Supplies Management**	10.5 **Supplies Management** (a) Identifies appropriate supply management strategies: • inventory control • storage • security	10.5 **Supplies Management** (a) Identifies local suppliers of professional grooming products (b) Lists major products available from each local supplier	10.5 **Supplies Management** (a) Demonstrates entry-level supply management skills (b) Evaluates own performance
10.6	**Work Area Management**	10.6 **Work Area Management** (a) Describes appropriate work area management procedures (b) Practises work area management (c) Recognizes need for ongoing care and maintenance of equipment, tools and facilities	10.6 **Work Area Management** (a) Lists and prepares a schedule of care and maintenance duties	10.6 **Work Area Management** (a) Demonstrates leadership and initiative in work area management (b) Evaluates own performance

INTEGRATED OCCUPATIONAL PROGRAM

OCCUPATIONAL COMPONENT

SCOPE AND SEQUENCE

Occupational Cluster: Personal and Public Services

Occupational Course: **FASHION AND FABRIC SERVICES**

Course Sequence: Fashion and Fabric Services 16-26-36

Notes:
1. Fashion and Fabric Services explores the area of fashion merchandising and sales and the area of fabric care and cleaning.
2. Students indicating strong interest in fashion merchandising and sales should be encouraged to take a combination of courses, including Business Services, Esthetology and Hair Care.
3. Grade 10 focuses on identification of skills, equipment and tools used in fashion and fabric services.
   Grade 11 focuses on basic skills demonstration.
   Grade 12 focuses on task performance to entry-level standards.

GENERAL OBJECTIVES

1. To develop students' personal and interpersonal skills.
2. To develop students' awareness of opportunities and employment conditions in the fashion sales and fabric service industries.
3. To develop students' knowledge and skills in the area of fashion merchandising, fabric care and cleaning, garment repairs and alterations.
4. To enable students to obtain employment in a related occupation and/or to articulate with another secondary program or post-secondary institution for further education.

	Grade 10	Grade 11	Grade 12
10 WORK SKILLS			
10.1 Identification			
10.1.1 **Job Scope**	10.1.1 **Job Scope** (a) Identifies the range of jobs in the fashion and fabric services industry (b) Identifies the skills required in each of the two major job areas: • fashion merchandising • fabric care and cleaning	10.1.1 **Job Scope** (a) Lists and describes jobs in the fashion and fabric services industry (b) Identifies the local job opportunities in each area (c) Lists the knowledge and skills required by workers in each area of the industry	10.1.1 **Job Scope** (a) Identifies and lists the fashion stores and services in the local community (b) Identifies and lists the fabric care and cleaning businesses in the local community (c) Identifies area of major interest
10.1.2 **Equipment, Tools and Supplies**	10.1.2 **Equipment, Tools and Supplies** (a) Identifies the major equipment and tools used in the fashion merchandising industry: • mannequins • models • display materials • sales centres	10.1.2 **Equipment, Tools and Supplies** (a) Identifies the parts and functions of the sewing machine	10.1.2 **Equipment, Tools and Supplies** (a) Demonstrates confidence using a sewing machine to perform simple operations

	Grade 10	Grade 11	Grade 12
	(b) Identifies the major equipment and tools used in the fabric care and cleaning industry • sewing machines • sewing supplies • cleaning machines • cleaning solvents	(b) Identifies basic care and maintenance techniques of sewing machines	(b) Describes standard care and maintenance duties of basic fashion and fabric equipment
	(c) Identifies and uses metric measures	(c) Identifies the parts and functions of a serger (d) Identifies parts and function of a blind hemmer	(c) Designs a sewing project (d) Uses a serger (e) Uses a blind hemmer
10.1.3 Fashion	10.1.3 Fashion (a) Describes the concept of fashion (b) Identifies recent fashion trends (c) Identifies the influences on fashion	10.1.3 Fashion (a) Identifies and records local trends in fashion (b) Describes the effects of advertising on fashion	10.1.3 Fashion (a) Describes how local fashion stores promote fashion trends (b) Recognizes the cyclical nature of fashion trends (c) Describes the effect of fashion on the economy
10.1.4 Fashion and Form	10.1.4 Fashion and Form (a) Defines and describes "fashion merchandising" (b) Identifies occupational areas in the industry • colour draping • fashion and accessory sales • fashion wardrobe advisors • models • window dressers • fashion buyers • seamstresses (c) Identifies parts of the body that are related to changes in the fashion industry • head • face • feet • torso • legs	10.1.4 Fashion and Form (a) Recognizes the procedure to perform colour draping (b) Identifies, lists and describes fashion accessories (male/female) • shoes • hosiery • handbags • belts • ties • scarves • jewelry • glasses • hats (c) Discusses and describes the components of good grooming/sense of fashion	10.1.4 Fashion and Form (a) Performs basic colour draping service (b) Demonstrates basic ability to colour coordinate fashions and accessories (c) Demonstrates a sense of shape and form in fashion selection and coordination for men and women

	Grade 10	Grade 11	Grade 12
	(d) Identifies and describes the major areas of the body	(d) Describes fashion techniques that maximize and/or minimize various body shapes (male/female)	(d) Evaluates own performance
	(e) Demonstrates ability to take and record body measurements using a tape measure	(e) Identifies the concepts of "shape" and "form"	
	(f) Identifies and records the colours of the seasons		
10.1.5 Fashion Sales	10.1.5 Fashion Sales	10.1.5 Fashion Sales	10.1.5 Fashion Sales
	(a) Identifies and lists characteristics of a good fashion salesperson	(a) Lists and records the strengths and weaknesses of different types of fashion displays	(a) Demonstrates entry level ability to sell fashions
	(b) Identifies the components of "eye appeal" displays	(b) Discusses and demonstrates "point of sale" fashion sales and service	(b) Demonstrates awareness of various types of fashion merchandising
	(c) Identifies types of fashion displays: • racks • mannequins • windows • models • magazines	(c) Identifies basic procedures for dealing with customers	
	(d) Identifies and lists characteristics of successful models (male/female)	(d) Demonstrates correct procedures for packaging and presenting merchandise to customers	(d) Demonstrates basic mannequin dressing techniques
	(e) Recognizes competitive environment in the industry	(e) Demonstrates appropriate bill writing, credit and cash handling techniques	(e) Creates a fashion "window dressing"
	(f) Defines and describes • poise • charm • features • confidence	(f) Recognizes fashion sales persons as fashion models	(f) Works with others to plan and present a total look fashion show
	(g) Describes the concept "The Total Look"	(g) Demonstrates skills related to modeling and sales: • poise • charm • confidence • grooming • dress	(g) Describes and demonstrates the basic principles of fashion modeling
			(h) Evaluates own/team's performance

	Grade 10	Grade 11	Grade 12
10.2 **Equipment, Tools and Supplies Usage**	10.2 **Equipment, Tools and Supplies Usage**	10.2 **Equipment, Tools and Supplies Usage**	10.2 **Equipment, Tools and Supplies Usage**
10.2.1 Fabrics	10.2.1 Fabrics (a) Identifies fabrics by fibre type • natural: cotton, wool, silk • synthetic: polyester, acrylic, rayon (b) Identifies fabrics by their construction weaves (c) Identifies and compares fibre performance, durability (d) Identifies content and care symbols on garments (e) Identifies appropriate care and cleaning methods for natural and synthetic fibres	10.2.1 Fabrics (a) Lists and describes major types of fibres (b) Matches fibres to appropriate methods of care and cleaning (c) Describes content and care symbols on garments (d) Creates and sews a basic garment	10.2.1 Fabrics (a) Identifies and describes the qualities of novel materials • leathers • ultrasuede (b) Identifies fabrics by fibre type and fibre weave (c) Identifies appropriate care and cleaning method for each common fibre type
10.2.2 Fabric Care	10.2.2 Fabric Care (a) Identifies the major parts of the fabric care process • cleaning - wet/dry • repairing • restoring (b) Identifies types of cleaning solvents • petroleum • synthetic (c) Identifies safe use practices with cleaning solvents (d) Identifies different types of stains (e) Demonstrates spotting techniques	10.2.2 Fabric Care (a) Identifies the operation of a cleaning plant (b) Identifies and uses cleaning equipment (c) Identifies safety regulations related to use of steam (d) Identifies and describes the wet cleaning process (e) Recognizes types and uses of wet cleaning fluids • acids • alkalis • bleaches	10.2.2 Fabric Care (a) Performs basic spot cleaning on identified stains (b) Correctly uses a steam cleaner (c) Assists with wet cleaning processes (d) Demonstrates entry-level ability to receive and distribute garments (e) Identifies and tags garments • dry cleaning • shirt laundry

		Grade 10	Grade 11	Grade 12
		(f) Identifies procedure for dye testing	(f) Identifies "problem" fabrics, materials	(f) Demonstrates ability to • write invoices • handle cash/credit • assemble orders for delivery
		(g) Spots stains correctly	(g) Identifies procedure for receiving and distributing garments to customers • reception process • distribution process	(g) Demonstrates safe use practices
			(h) Demonstrates safe use practices	(h) Evaluates own performance
10.2.3	Garment Repair	10.2.3 Garment Repair (a) Demonstrates ability to sew by hand	10.2.3 Garment Repair (a) Demonstrates basic tasks on a sewing machine • Threads the machine • Fills bobbins • Adjusts machine tension • Uses adjuster dial (if available) to produce varied stitches	10.2.3 Garment Repair (a) Demonstrates basic ability to replace zippers
		(b) Demonstrates ability to handle sewing shears	(b) Designs and makes a stitch sampler	(b) Performs simple repairs using needle and thread
		(c) Performs simple repairs using needle and thread	(c) Demonstrates basic competency on the sewing machine • sews straight lines • follows a guide/bastes • sews seams • attaches zipper to fabric • zigzag stitches • cuffs and tapers pants and slacks	(c) Demonstrates care and safe use practices on equipment, tools and fabrics
		(d) Demonstrates ability to replace buttons by hand sewing	(d) Demonstrates basic ability to sew arm patches	(d) Evaluates own performance
		(e) Demonstrates basic sewing techniques • measuring • marking • pinning/basting	(e) Correctly uses a sewing machine to perform simple repairs	
			(f) Demonstrates ability to perform minor garment repairs	
			(g) Demonstrates care and respect for tools, equipment and materials	

		Grade 10	Grade 11	Grade 12
10.2.4	Consumer Awareness	10.2.4 Consumer Awareness (a) Identifies the quality characteristics of "clothes" (b) Identifies the factors affecting price of clothes (c) Recognizes the difference between "needs" and "wants" (d) Defines the concept "Buyer Beware"	10.2.4 Consumer Awareness (a) Discusses how advertising affects consumers (b) Lists and records typical seasonal clothes purchases (c) Calculates average costs of purchasing by cash and by credit (d) Discusses the merits of cash versus credit purchases to • shop owners • purchasers (e) Identifies techniques for recycling clothes • shortening • lengthening • mix and match • accessorizing	10.2.4 Consumer Awareness (a) Identifies and compares cost of credit from • banks • bankcards • department stores (b) Discusses "truth in advertising" as applied to the fashion industry (c) Demonstrates basic techniques of recycling clothes (d) Recognizes opportunities in clothes recycling next to new business
10.3	**Work Standards**	10.3 **Work Standards** (a) Identifies work standards appropriate to two major areas of the fashion industry • fashion merchandising • fabric care and cleaning	10.3 **Work Standards** (a) Demonstrates willingness and potential to work to accepted standards in one or both major areas of the fashion industry	10.3 **Work Standards** (a) Demonstrates ability to conform to entry-level standards in major interest area (b) Evaluates own performance
10.4	**Supplies Management**	10.4 **Supplies Management** (a) Identifies the importance of safe, secure and sanitary supply management (b) Uses safe, secure and sanitary supply management practices	10.4 **Supplies Management** (a) Lists and describes benefits of efficient and effective supply management	10.4 **Supplies Management** (a) Demonstrates safe practices and supply conservation (b) Evaluates own performance

		Grade 10	Grade 11	Grade 12
10.5	**Work Area Management**	10.5 **Work Area Management** (a) Identifies work area management procedures • fashion merchandising • fabric care and cleaning	10.5 **Work Area Management** (a) Lists and describes work area management in each major job classification	10.5 **Work Area Management** (a) Demonstrates leadership and initiative (b) Works with others to maintain standards (c) Evaluates own/team's performance

INTEGRATED OCCUPATIONAL PROGRAM

OCCUPATIONAL COMPONENT

SCOPE AND SEQUENCE

Occupational Cluster: Personal and Public Services

Occupational Course: **HAIR CARE**

Course Sequence: Hair Care 16-26-36

Notes:
1. Hair Care 16-26-36 is designed for students who are interested in working with human/non-human hair goods and products. A wide range of occupations would be available to graduates.
2. Students indicating a strong interest in the personal grooming occupations should be encouraged to take the Esthetology sequence in addition to the Hair Care sequence.
3. Students showing superior abilities may be transferred to Beauty Culture 12-22-32 sequence.

GENERAL OBJECTIVES

1. To develop students' personal and interpersonal skills.
2. To develop students' awareness of opportunities and employment conditions in the personal services, personal grooming industry.
3. To develop students' knowledge and skills in the care of hair, hair goods and related products.
4. To enable students to obtain employment in a related occupation and/or to articulate with another secondary program or post-secondary institution for further education.

	Grade 10	Grade 11	Grade 12
10. WORK SKILLS			
10.1 Identification			
10.1.1 **Job Scope**	10.1.1 **Job Scope** (a) Identifies the scope of related jobs: • beauty advisor • beauty product representative • cosmetic sales • entrepreneur • receptionist • salon assistant • wig dresser • wig sales	10.1.1 **Job Scope** (a) Describes and lists the knowledge and skills required for related jobs (b) Describes related career ladders (c) Investigates local job and career opportunities	10.1.1 **Job Scope** (a) Identifies jobs/career path of major interest in the hair care industry (b) Identifies local job/career opportunities in area of major interest
10.1.2 **Equipment, Tools and Supplies**	10.1.2 **Equipment, Tools and Supplies** (a) Identifies major items of grooming equipment and tools	10.1.2 **Equipment, Tools and Supplies** (a) Describes major equipment, tools and supplies	10.1.2 **Equipment, Tools and Supplies** (a) Identifies and records condition of major equipment items and tools

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		(b) Locates the storage areas for equipment, tools and supplies	(b) Takes inventory of major items • equipment • tools • supplies (c) Calculates the cost of purchasing a basic kit	
10.1.3	Product Knowledge	10.1.3 Product Knowledge (a) Identifies hair care products • home use • professional use	10.1.3 Product Knowledge (a) Selects appropriate products for individual needs	10.1.3 Product Knowledge (a) Describes major hair care products (b) Identifies local suppliers of hair care products • wholesale • retail (c) Compares wholesale and retail prices and calculates profit margins (d) Identifies related products that are or could be sold in grooming/beauty shops areas
10.2	**Equipment, Tools and Supplies Usage**	10.2 **Equipment, Tools and Supplies Usage**	10.2 **Equipment, Tools and Supplies Usage**	10.2 **Equipment, Tools and Supplies Usage**
10.2.1	Draping	10.2.1 Draping (a) Identifies different draping procedures • dry service • wet service (b) Determines the appropriate draping for a service	10.2.1 Draping (a) Selects appropriate draping for a service (b) Demonstrates wet and dry draping	10.2.1 Draping (a) Demonstrates entry-level draping skills • wet service • dry service (b) Uses appropriate procedures to protect patron
10.2.2	Hair Setting/ Hairstyling	10.2.2 Hair Setting/Hairstyling (a) Describes the procedure used to • part hair • set hair	10.2.2 Hair Setting/Hairstyling (a) Demonstrates use of combs and brushes to • create shaping • control hair • finger wave • style	10.2.2 Hair Setting/Hairstyling (a) Demonstrates ability to handle hair • comb • brush • part • detangle

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(b) Identifies the direction of hair flow	(b) Demonstrates creation of pincurls: • identifies types of curls • identifies types of bases • makes pincurls: - sculpture curls - flair curls - stand-up curls • secures each curl	(b) Demonstrates ability to set a style using: • rollers • finger wave • blow dryer and curling iron • pincurls • braiding • combination setting techniques
(c) Demonstrates use of combs and brushes to handle hair: • detangling • directing • weaving • parting • shaping	(c) Demonstrates use of brush to create a style on set hair: • roller set • pincurl set	(c) Demonstrates ability to style hair using a variety of styling tools and aids: • blowers • curling irons • combs • brushes • ornaments
(d) Demonstrates use of blow dryers: • recognizes controls • identifies safe usage • dries hair • brushs hair	(d) Demonstrates ability to set and style hair using a blow dryer, a comb and/or a brush	(d) Demonstrates safe use practices
(e) Demonstrates use of blow dryers in combination with comb and brush: • dries hair • shapes hair • directs hair	(e) Demonstrates ability to braid hair: • two-strand braids • three-strand braids • four-strand flat braiding	(e) Evaluates own performance
(f) Demonstrates use of rollers and securing clips/pins (on-base technique): • combs hair • sections hair • selects appropriate roller sizes • secures with clip/pin		
(g) Demonstrates the use of curling irons to create movements (on-base technique): • combs hair • sections hair • winds hair		
(h) Demonstrates the ability to braid hair: • French braid • corn-row braid		

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	(i) Demonstrates basic comb-out techniques Brushing • uses brush to blend hair • uses brush to back brush • uses brush to style and finish Combing • uses comb to blend hair • uses comb to back comb • uses comb to style and finish		
10.2.3 Cosmetic Chemistry	10.2.3 Cosmetic Chemistry	10.2.3 Cosmetic Chemistry (a) Defines and describes the meaning of pH (b) Identifies the relationship between pH and healthy hair (c) Measures the pH of common hair cosmetics (d) Identifies the difference between cosmetics and drugs (e) Identifies and describes the use of hydrogen peroxide on hair	10.2.3 Cosmetic Chemistry (a) Demonstrates ability to use cosmetics/chemicals correctly (b) Explains the relationship between pH and hair (c) Demonstrates safe use practices (d) Evaluates own performance
10.2.4 Hair Cleansing	10.2.4 Hair Cleansing (a) Identifies related terms (b) Identifies types of shampoos (c) Matches shampoo to correct function (d) Identifies and lists shampoo safety procedures (e) Demonstrates ability to • select a shampoo • perform a shampoo service • comb out hair • prepare for hair setting	10.2.4 Hair Cleansing (a) Demonstrates proper shampoo procedures (b) Demonstrates safe use practices	10.2.4 Hair Cleansing (a) Demonstrates ability to shampoo hair (b) Demonstrates safe use practices

	Grade 10	Grade 11	Grade 12
10.2.5 Hair Rinses	10.2.5 Hair Rinses (a) Identifies types of rinses and their functions (b) Demonstrates ability to: • select appropriate rinse • apply acid rinse • apply creme rinse	10.2.5 Hair Rinses (a) Demonstrates proper selection and application of hair rinses (b) Demonstrates safe use practices • protecting patron's skin • protecting patron's clothing	10.2.5 Hair Rinses (a) Demonstrates entry level ability to select and apply hair rinses (b) Demonstrates safe use practices
10.2.6 Haircutting	10.2.6 Haircutting	10.2.6 Haircutting (a) Identifies related terms (b) Identifies haircutting tools • scissors • razors • clippers (c) Defines and describes concept of "elevation" (d) Holds hair at proper elevation to style • zero elevation cuts • 45° elevation cuts • 90° elevation cuts (e) Demonstrates ability to follow a basic haircutting pattern (f) Demonstrates safe haircutting practices	10.2.6 Haircutting (a) Demonstrates simple haircuts on hair goods (b) Demonstrates safe haircutting practices
10.2.7 Hair Goods	10.2.7 Hair Goods	10.2.7 Hair Goods (a) Identifies types of hair goods • wigs • hairpieces (b) Identifies reasons for wearing hair goods (c) Identifies type of "material" in hair goods (d) Sets a hairpiece using rollers and pincurls (e) Demonstrates alternative comb out styles of set hairpiece (f) Demonstrates ability to set and comb out a wig • human hair • synthetic fibre	10.2.7 Hair Goods (a) Demonstrates techniques for colouring wigs (b) Demonstrates techniques for measuring patrons for custom made wigs (c) Recognizes the limitations of altering the size of wig (d) Demonstrates care and safe use practices when handling hair goods (e) Evaluates own performance

	Grade 10	Grade 11	Grade 12
		(g) Demonstrates hair goods cleansing techniques	
10.2.8 Hair Analysis	10.2.8 Hair Analysis	10.2.8 Hair Analysis (a) Identifies the relationship of hair to the skin	10.2.8 Hair Analysis (a) Demonstrates entry level ability to analyze hair • porosity • elasticity • density • colour • length • type by locations
		(b) Identifies types of hair • ethnic origin • body location	
		(c) Lists the major structures of hair	
		(d) Describes the major functions of hair	
		(e) Identifies the major hair analysis categories • texture • elasticity • porosity	
		(f) Analyzes hair according to the three major categories	
10.2.9 Diseases and Disorders	10.2.9 Diseases and Disorders	10.2.9 Diseases and Disorders	10.2.9 Diseases and Disorders (a) Identifies the basic structure and function of the skin (b) Identifies and describes common disorders and diseases of the scalp (c) Recognizes treatable and non-treatable skin/scalp conditions
10.2.10 Hair Conditioning	10.2.10 Hair Conditioning (a) Applies conditioners correctly (b) Protects patron during conditioning service	10.2.10 Hair Conditioning (a) Identifies various types of conditioners (b) Determines appropriate conditioners to use for different hair conditions	10.2.10 Hair Conditioning (a) Demonstrates correct procedures for using hair conditioners (b) Evaluates own performance

	Grade 10	Grade 11	Grade 12
10.2.11 Salesmanship	10.2.11 Salesmanship (a) Presents a positive image in the workplace (b) Identifies the meaning of terms • salesmanship • service	10.2.11 Salesmanship (a) Describes the characteristics of an effective salesperson (b) Introduces patrons to services and products	10.2.11 Salesmanship (a) Identifies and demonstrates sales activities: • providing information • suggestion selling • request selling • display advertising • promotions
10.2.12 Receptionist Duties	10.2.12 Receptionist Duties (a) Identifies the duties of a receptionist • customer relations • staff relations • taking appointments • handling taking stock • answering the telephone • displaying merchandise	10.2.12 Receptionist Duties (a) Performs basic duties of a receptionist • taking appointments • answering telephone • handling money • displaying merchandise (b) Maintains good relationships with staff, customers, others	10.2.12 Receptionist Duties (a) Appreciates the responsibilities of a receptionist (b) Demonstrates entry-level receptionist abilities (c) Demonstrates ability to act as a receptionist: • relate well to others • project a positive image • answer the telephone • provide product information • book and change appointments • deal with emergencies • perform support duties to others • use effective sales techniques (d) Evaluates own performance

		Grade 10	Grade 11	Grade 12
10.2.13	Permanent Waving	10.2.13 Permanent Waving (a) Sections hair for a permanent wave (b) Blocks hair for a permanent wave (c) Winds permanent wave rods	10.2.13 Permanent Waving (a) Sections, blocks and winds hair for a permanent wave (b) Identifies procedures for performing sectional permanent wave (c) Uses a variety of tools to permanent wave hair	10.2.13 Permanent Waving (a) Identifies parts of the permanent wave process • chemical • physical (b) Demonstrates the process of permanent waving • sectioning • blocking • wrapping • winding • checking the curl • neutralizing (c) Evaluates own performance
10.3	**Work Standards**	10.3 **Work Standards** (a) Identifies safety and sanitary regulations applying to grooming/beauty shops (b) Identifies common chemical and physical methods of infection control	10.3 **Work Standards** (a) Demonstrates appropriate safety practices (b) Demonstrates personal and public hygiene practices (c) Demonstrates the use of wet and dry sterilizers	10.3 **Work Standards** (a) Appreciates the importance of standards in the industry (b) Demonstrates employment-level standards in each task area (c) Evaluates own performance
10.4	**Supplies Management**	10.4 **Supplies Management** (a) Identifies appropriate supply management strategies • inventory control • storage • security	10.4 **Supplies Management** (a) Identifies local suppliers of professional grooming materials (b) Lists major products, equipment, supplies and tools available from local suppliers	10.4 **Supplies Management** (a) Demonstrates supply management skills (b) Evaluates own performance
10.5	**Work Area Management**	10.5 **Work Area Management** (a) Recognizes need for ongoing care and maintenance of equipment, tools and facilities (b) Maintains a safe, clean work area	10.5 **Work Area Management** (a) Lists and prepares a schedule of care and maintenance duties (b) Performs work area maintenance duties	10.5 **Work Area Management** (a) Demonstrates leadership and initiative in shop management (b) Evaluates own performance

INTEGRATED OCCUPATIONAL PROGRAM

OCCUPATIONAL COMPONENT

SCOPE AND SEQUENCE

Occupational Cluster: Tourism and Hospitality

Occupational Course: **COMMERCIAL FOOD PREPARATION**

Course Sequence: Commercial Food Preparation 16-26-36

Notes:
1. Grade 10 focuses on identification of the equipment, utensils and basic processes in food preparation. Foods prepared include basic salads, fast foods, soups and baked goods. Grade 11 focuses on continued skill development and preparation of breakfast and lunch cookery in addition to baked goods. Grade 12 focuses on lunch and dinner cookery. All previous skills are practised to entry level standards.
2. Students indicating a strong interest in food preparation should be encouraged to take the Food Services sequence as well as the Commercial Food Preparation series.

GENERAL OBJECTIVES

1. To develop students' personal and interpersonal skills.
2. To develop students' awareness of opportunities and working conditions in the commercial food preparation industry.
3. To develop students' knowledge and skills in basic commercial food preparation.
4. To enable students to obtain employment in a related occupation and/or to articulate with another secondary program or post-secondary institution for further education.

	Grade 10	Grade 11	Grade 12
10. WORK SKILLS			
10.1 Identification			
10.1.1 **Job Scope**	10.1.1 **Job Scope** (a) Identifies the scope of careers in commercial food preparation industry. (b) Identifies job positions in commercial food preparation. (c) Defines related terms. (d) Identifies preparation areas in a kitchen.	10.1.1 **Job Scope** (a) Identifies the scope of the local commercial food preparation industry. (b) Defines job duties in commercial food preparation industry. (c) Uses related terms correctly. (d) Recognizes and describes each preparation area in a kitchen.	10.1.1 **Job Scope** (a) Performs job search for an entry-level position in local commercial food preparation industry. (b) Demonstrates correct use of culinary terms. (c) Sketches an outline of a common kitchen.
10.1.2 **Equipment, Tools and Supplies**	10.1.2 **Equipment, Tools and Supplies** (a) Identifies and uses basic kitchen equipment.	10.1.2 **Equipment, Tools and Supplies** (a) Describes care and maintenance of: • kitchen utensils • cutting tools • spreading tools • serving tools • measuring tools	10.1.2 **Equipment, Tools and Supplies** (a) Identifies related health and safety regulations.

		Grade 10	Grade 11	Grade 12
		(b) Uses common kitchen tools and utensils	(b) Describes care and maintenance of common kitchen equipment	(b) Performs basic care and maintenance of: • kitchen utensils • cutting tools • spreading tools • serving tools • measuring tools
		(c) Recognizes correct use of cutting tools (d) Recognizes correct use of spreading tools (e) Recognizes correct use of serving tools (f) Recognizes correct use of measuring devices (g) Recognizes and uses correct sanitation practices (h) Recognizes and demonstrates appropriate dishwashing procedures		
10.1.3	Types of Commercial Food Preparation	10.1.3 Types of Commercial Food Preparation (a) Recognizes fast food production processes (b) Identifies fast food products (c) Recognizes differences between: • fast food outlets • institutional cooking • restaurant cooking • fine dining	10.1.3 Types of Commercial Food Preparation (a) Identifies procedures for short order cookery (b) Identifies procedures for breakfast cookery (c) Identifies procedures for lunch cookery (d) Identifies procedures for dinner cookery	10.1.3 Types of Commercial Food Preparation (a) Lists procedures and products of short-order cookery (b) Lists procedures and products of breakfast cookery (c) Identifies procedures and products of luncheon cookery (d) Identifies special features of banquet cookery
10.1.4	Nutrition	10.1.4 Nutrition (a) Defines "nutrition" (b) Identifies the major food groups	10.1.4 Nutrition (a) Lists the major food groups	10.1.4 Nutrition (a) Demonstrates use of basic rules of nutrition

	Grade 10	Grade 11	Grade 12
10.2 **Equipment, Tools and Supplies Usage**	10.2 **Equipment, Tools and Supplies Usage**	10.2 **Equipment, Tools and Supplies Usage**	10.2 **Equipment, Tools and Supplies Usage**
10.2.1 Equipment	10.2.1 Equipment (a) Describes and uses available kitchen equipment: • range and oven • griddle and broiler • deep fryer • bakers' convection oven • microwave oven • steam kettle • dishwasher • freezer	10.2.1 Equipment (a) Cleans kitchen equipment after use	10.2.1 Equipment (a) Follows health and welfare regulations
10.2.2 Tools	10.2.2 Tools (a) Identifies and uses cutting tools: • knives • cleaver • slicer • shredder • chopper (b) Identifies and uses spreading tools: • spatulas • palette knives (c) Identifies and uses mixers: • French whip • wooden spoon • spatula • electric mixer (d) Identifies measuring devices: • ladles • scoops • portion scale (e) Uses measures of: • weight • volume • number	10.2.2 Tools (a) Sharpens knives: • uses steel • uses whetstone (b) Cleans and stores tools in correct location	10.2.2 Tools (a) Demonstrates competency in use of: • knives • spreaders • mixers • measuring devices
10.2.3 Supplies	10.2.3 Supplies (a) Identifies supplies used to clean equipment and tools (b) Identifies major cooking supplies	10.2.3 Supplies (a) Uses appropriate supplies to clean equipment and tools (b) Measures and uses cooking supplies	10.2.3 Supplies (a) Performs cleaning and storage tasks to accepted standards (b) Selects appropriate cooking supplies for each (c) Keeps supply records and initiates re-ordering

		Grade 10	Grade 11	Grade 12
10.3	**Work Standards**	10.3 **Work Standards**	10.3 **Work Standards**	10.3 **Work Standards**
10.3.1	Operating Behaviour	10.3.1 Operating Behaviour (a) Demonstrates safe operating behaviour (b) Maintains standards set by teacher supervisor	10.3.1 Operating Behaviour (a) Lists safe operating procedures in the kitchen (b) Maintains standards set by teacher supervisor	10.3.1 Operating Behaviour (a) Demonstrates entry level operating behaviour (b) Maintains standards set by teacher supervisor
10.3.2	Methods of Cooking	10.3.2 Methods of Cooking (a) Recognizes methods of cooking • boiling • steaming • poaching • stewing • roasting • braising • grilling • baking • frying • deep frying	10.3.2 Methods of Cooking (a) Describes common methods of cooking	10.3.2 Methods of Cooking (a) Demonstrates entry level basic cooking techniques
10.3.3	Cooking	10.3.3 Cooking (a) Identifies purpose of a recipe (b) Identifies ingredients and prepares fast foods • hot dogs • hamburgers • French fries • hash browns (c) Identifies ingredients and prepares sandwiches (d) Identifies ingredients and prepares salads • tossed salads • salad plates • fruit salads • salad sandwich fillings (e) Identifies ingredients and prepares stocks and soups • basic beef stock • basic chicken stock • clear soups	10.3.3 Cooking (a) Follows recipes (b) Demonstrates breakfast cookery (c) Identifies major food items (d) Prepares eggs • scrambled • fried • poached • hard boiled • omelet (e) Prepares pancakes • plain • fruit	10.3.3 Cooking (a) Identifies standards used to judge quality of • cooked food • uncooked food (b) Identifies use of garnishes (c) Prepares garnishes for • sandwich plates • salad plates • luncheon plates • dinner plates (d) Demonstrates ability to modify recipes (e) Demonstrates vegetable cookery • selection • preparation • types of cookery

		Grade 10	Grade 11	Grade 12
			(f) Prepares breads • plain toast • French toast • cinnamon toast • biscuits • muffins	(f) Demonstrates meat cookery • meat selection • meat preparation • roasting
			(g) Prepares beverages • tea • coffee • juices	(g) Demonstrates use of beverage making machines • coffee • hot chocolate • juices • milk shakes
			(h) Prepares cereals • hot • cold	(h) Identifies ingredients and prepares desserts • cream pies • cream puffs • custards
			(i) Prepares fruits	(i) Evaluates own performance
			(j) Demonstrates meal planning and prepares nutritionally balanced: • hot lunch plate • salad plate	
			(k) Identifies ingredients and prepares desserts	
10.3.4	Baking	10.3.4 Baking	10.3.4 Baking	10.3.4 Baking
		(a) Identifies baking as a career field	(a) Prepares baked goods • breads • pies • muffins • cookies • cakes	(a) Demonstrates ability to perform basic baking procedures
		(b) Identifies the ingredients of baked goods		(b) Demonstrates ability to adapt recipes
		(c) Prepares simple baked goods		(c) Evaluates own performance
10.4	**Supplies Management**	10.4 **Supplies Management**	10.4 **Supplies Management**	10.4 **Supplies Management**
		(a) Identifies storage procedures and facilities	(a) Demonstrates use of plastic wrap for storage	(a) Calculates cost of a meal • identifies ingredients • measures ingredients • prices ingredients • calculates costs

		Grade 10	Grade 11	Grade 12
		(b) Identifies storage/handling procedures for fresh foods • meats • milk • eggs • fruits • vegetables	(b) Demonstrates correct handling and storage procedures for • fresh foods • cooked foods	(b) Demonstrates efficient supply management • low wastage • correct measuring • correct cookery • inventory control
		(c) Identifies storage and handling procedures for dry foods • cereal grains • cereal flour	(c) Recognizes methods of controlling food wastage	(c) Evaluates own performance
		(d) Identifies storage and handling • canned foods • frozen foods		
10.5	**Work Area Management**	10.5 **Work Area Management** (a) Recognizes purpose of regular kitchen care and maintenance	10.5 **Work Area Management** (a) Prepares cleaning and maintenance schedule	10.5 **Work Area Management** (a) Demonstrates leadership and initiative
		(b) Sanitizes work areas	(b) Works with others to ensure a safe, clean, sanitary workplace	(b) Totals cash register receipts
		(c) Maintains a clean, safe, sanitary work area		(c) Participates in a maintenance schedule to maintain a safe, clean, sanitary work area

INTEGRATED OCCUPATIONAL PROGRAM

OCCUPATIONAL COMPONENT

SCOPE AND SEQUENCE

Occupational Cluster: Tourism and Hospitality

Occupational Course: **FOOD SERVICES**

Course Sequence: Food Services 16-26-36

Notes:
1. Students with a broad interest in the food industry should be encouraged to take Food Services and Commercial Food Preparation courses.
2. Grade 10 focuses on identification of table ware, table settings, food service types and an overview of the tasks in the industry.
   Grade 11 develops basic food service skills to introductory level.
   Grade 12 develops skills related to food service to entry level proficiency.

GENERAL OBJECTIVES

1. To develop students' personal and interpersonal skills.
2. To develop students' awareness of opportunities and working conditions in the food service industry.
3. To develop students' knowledge and skills of food services.
4. To enable students to obtain employment in a related occupation, and/or to articulate with another secondary program or post-secondary institution for further education.

	Grade 10	Grade 11	Grade 12
10 **WORK SKILLS**			
10.1 **Identification**			
10.1.1 **Job Scope**	10.1.1 **Job Scope** (a) Identifies the scope of the food services industry. (b) Identifies duties of food service workers: • bus persons • waiters/waitresses • captains • hosts/hostesses • line servers. (c) Recognizes career ladders in the industry.	10.1.1 **Job Scope** (a) Describes the scope of the food service industry. (b) Describes career opportunities and career ladders. (c) Lists duties of bus persons. (d) Lists duties of food and beverage service workers. (e) Identifies duties of a head waiter/maitre d'hotel.	10.1.1 **Job Scope** (a) Describes duties of each level of food service worker: • pot washer • bus person • waiter/waitress • head waiter/maitre d'hotel • owner/operator.

		Grade 10	Grade 11	Grade 12
10.1.2	Equipment, Tools and Supplies	10.1.2 **Equipment, Tools and Supplies** (a) Identifies tableware • fishware • flatware • glassware • related tools (b) Identifies storage areas	10.1.2 **Equipment, Tools and Supplies** (a) Describes the various types of tableware (b) Identifies related dining room equipment • bus trays • credenza	10.1.2 **Equipment, Tools and Supplies** (a) Lists and describes items used in place settings (b) Lists and describes items found in a dining room
10.1.3	Safety and Sanitation	10.1.3 Safety and Sanitation (a) Recognizes and uses accepted safety practices (b) Recognizes need for personal and public hygiene	10.1.3 Safety and Sanitation (a) Demonstrates safe use practices (b) Demonstrates personal and public hygiene practices	10.1.3 Safety and Sanitation (a) Demonstrates knowledge and skill in entry level • safety practices • sanitation practices (b) Identifies provincial regulations related to safety and sanitation
10.2	Equipment, Tools and Supplies Usage	10.2 **Equipment, Tools and Supplies Usage**	10.2 **Equipment, Tools and Supplies Usage**	10.2 **Equipment, Tools and Supplies Usage**
10.2.1	Types of Food Service	10.2.1 Types of Food Service (a) Identifies terms used in the industry (b) Recognizes types of service • American • English • cafe • buffet • banquet	10.2.1 Types of Food Service (a) Lists and describes terms used in food service (b) Demonstrates American service (c) Demonstrates English family style service (d) Identifies the characteristics of French service (e) Demonstrates fast food and cafe service (f) Demonstrates buffet service	10.2.1 Types of Food Service (a) Demonstrates use of appropriate food service vocabulary (b) Lists and describes duties required for • fast food service • American service • English family style service • French service • buffet service (c) Lists and describes banquet service duties
10.2.2	Tray Service	10.2.2 Tray Service (a) Identifies types of tray service	10.2.2 Tray Service (a) Serves (c) foods	10.2.2 Tray Service (a) Performs tray service duties in • bus station • waiter waitress • head waiter

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(b) Loads a serving tray	(b) Serves cold foods	(b) Demonstrates sanitary work habits
(c) Lifts and carries a serving tray	(c) Carries a loaded service tray	(c) Performs meal services • American style • English/family style • French style • buffet style
(d) Carries tableware	(d) Uses American service	
(e) Handles tableware • places on table • removes from table	(e) Uses English family style service	
(f) Uses a tray stand	(f) Demonstrates fast food service	

10.2.3 Table Settings	10.2.3 Table Settings	10.2.3 Table Settings
(a) Defines the term "cover"	(a) Lists the parts of a cover	(a) Sets covers appropriate to meal, menu and type of service
(b) Identifies parts of a cover	(b) Lists basic rules for setting a cover	(b) Demonstrates sanitary work habits
(c) Identifies types of covers	(c) Describes basic covers • American • cafeteria • formal • fast food	
(d) Identifies appropriate use of cover setting	(d) Demonstrates • a breakfast cover • a luncheon cover • a formal dinner cover • a dessert cover	

10.2.4 Side Work and Busing	10.2.4 Side Work and Busing	10.2.4 Side Work and Busing
(a) Defines the terms "side work" and "busing"	(a) Lists side work and busing duties	(a) Performs opening, intermediate and closing side work duties
(b) Identifies related terms and duties • folds napkins • refills condiments • sets basic covers • positions a table cloth • handles supplies and equipment • bumps a table • uses a side stand	(b) Demonstrates cleaning side work duties	(b) Demonstrates sanitary work habits

	Grade 10	Grade 11	Grade 12
		(c) Demonstrates crumbing and clearing a table (d) Demonstrates changing a tablecloth (e) Folds a napkin (f) Sets up and maintains a side stand	(c) Demonstrates entry-level busing abilities
10.2.5 Guest Relationships	10.2.5 Guest Relationships (a) Identifies the meaning of "service" (b) Identifies guest handling practices: • greets • seats • attends (c) Recognizes importance of verbal and non-verbal behaviour	10.2.5 Guest Relationships (a) Demonstrates correct guest/staff relationships (b) Handles guests' complaints (c) Handles guests' children (d) Handles friends of guest guests (e) Handles elderly guests	10.2.5 Guest Relationships (a) Performs head waiter matre d'hotel hosting duties (b) Handles noisy intoxicated guests (c) Demonstrates effective and efficient guest relations
10.2.6 Taking Menu Orders	10.2.6 Taking Menu Orders (a) Identifies procedure of menu presentations (b) Uses an order pad/bill (c) Calculates bill totals	10.2.6 Taking Menu Orders (a) Presents and interprets menus (b) Identifies types of menus (c) Turns orders (d) Places orders (e) Receives and checks orders (f) Serves orders (g) Records prices (h) Calculates total cost of meal for a party of four persons	10.2.6 Taking Menu Orders (a) Performs order taking, placing, receiving operations (b) Records and calculates meal costs for four guests (c) Presents cheque to guests
10.2.7 Beverage Service	10.2.7 Beverage Service (a) Identifies types of beverages (b) Identifies common non-alcoholic beverages (c) Recognizes importance of provincial regulations governing the sale of alcoholic beverages	10.2.7 Beverage Service (a) Serves non-alcoholic beverages (b) Identifies provincial liquor regulations and their applications	10.2.7 Beverage Service (a) Complies with house standards (b) Prepares hot beverages table side (c) Complies with provincial liquor regulations

E = Elective

Teachers should ensure that they are familiar with Alberta Liquor Control Board General Guidelines and Regulations and their annual report's policy regarding restrictions on the elective components of this instructional unit.

		Grade 10	Grade 11	Grade 12
10.2.6	Salesmanship	10.2.8 Salesmanship (a) Identifies the principles of salesmanship (b) Recognizes importance of • personality • first impression • grooming	10.2.8 Salesmanship (a) Lists and describes the skills of salesmanship (b) Recognizes the components of salesmanship (P P P S) • person • place • product • service (c) Recognizes guests' needs	10.2.8 Salesmanship (a) Uses suggestive selling techniques (b) Uses display selling techniques (c) Demonstrates P P P S components of salesmanship
10.2.7	Cashier Duties	10.2.9 Cashier Duties (a) Identifies types of a cashier (b) Makes change (c) Identifies basic procedures for handling credit cards	10.2.9 Cashier Duties (a) Recognizes responsibilities of a cashier (b) Processes credit cards (c) Handles cheques	10.2.9 Cashier Duties (a) Accepts bills/cancels money (b) Uses customer relations techniques (c) Deals with problems
10.3	**Work Standards**	10.3 **Work Standards** (a) Identifies related standards • sanitation • safety • security • personal (b) Maintains standards set by teacher/supervisor	10.3 **Work Standards** (a) Demonstrates ability to work to standards set by teacher/supervisor	10.3 **Work Standards** (a) Demonstrates employment level standards (b) Evaluates own performance
10.4	**Supplies Management**	10.4 **Supplies Management** (a) Identifies basic supply management practices (b) Identifies correct storage procedures	10.4 **Supplies Management** (a) Records items when supply is low (b) Uses correct storage practices (c) Recognizes condiments and describes their uses (d) Identifies linen storage and requirements/replacement procedures	10.4 **Supplies Management** (a) Maintains supply inventory (b) Recommends purchases (c) Maintains equipment inventory (d) Evaluates own performance

		Grade 10	Grade 11	Grade 12
10.5	**Work Area Management**	10.5 **Work Area Management** (a) Recognizes the need for regular care and maintenance (b) Demonstrates safe and sanitary practices (c) Maintains a safe, clean work area	10.5 **Work Area Management** (a) Cares for personal work area (b) Recognizes the need for teamwork	10.5 **Work Area Management** (a) Works with others to maintain the total work area (b) Demonstrates leadership and initiative (c) Evaluates own performance

INTEGRATED OCCUPATIONAL PROGRAM

OCCUPATIONAL COMPONENT

SCOPE AND SEQUENCE

Occupational Cluster: Tourism and Hospitality

Occupational Course: **MAINTENANCE AND HOSPITALITY SERVICES**

Course Sequence: Maintenance and Hospitality Services 16-26-36

Notes: 1. Grade 10 focuses on equipment and tool identification, building systems identification and basic floor care techniques.
Grade 11 focuses on building systems maintenance, flooring care, cleaning duties and special area care.
Grade 12 focuses on practising previous skills to entry-level standards and introduction to hotel duties.

2. Students with interest in the tourism and hospitality industry should be encouraged to consider enrolling in Construction Services or Building Services.

GENERAL OBJECTIVES

1. To develop students' personal and interpersonal skills.
2. To develop students' awareness of opportunities and working conditions in the maintenance and hospitality industry.
3. To develop students' knowledge and skills of maintenance and hospitality services.
4. To enable students to obtain employment in a related occupation and/or to articulate with another secondary program or post-secondary institution for further education.

	Grade 10	Grade 11	Grade 12
10 WORK SKILLS			
10.1 Identification			
10.1.1 **Job Scope**	10.1.1 **Job Scope** (a) Identifies careers in the maintenance and hospitality services industry. (b) Identifies scope of related jobs: • custodian • janitor • security guard • general maintenance • bellhop • housekeeper • chambermaid • houseman (c) Defines industry related terms.	10.1.1 **Job Scope** (a) Describes and lists the knowledge and skills required for each related job. (Grade 10: 8.1.1.a)	10.1.1 **Job Scope** (a) Identifies jobs of major interest. (b) Identifies local job opportunities in areas of major interest.
10.1.2 **Equipment, Tools and Supplies**	10.1.2 **Equipment, Tools and Supplies** (a) Identifies major equipment, tools and supplies used in job areas.	10.1.2 **Equipment, Tools and Supplies** (a) Takes inventory of equipment, tools and supplies by category.	10.1.2 **Equipment, Tools and Supplies** (a) Labels and properly identifies location of equipment, tools and supplies.

		Grade 10	Grade 11	Grade 12
		(b) Classifies equipment and tools according to function • protection • cleaning • repair • garden work • woodwork • plumbing • electrical work		
10.2	Equipment, Tools and Supplies Usage	10.2 Equipment, Tools and Supplies Usage	10.2 Equipment, Tools and Supplies Usage	10.2 Equipment, Tools and Supplies Usage
10.2.1	Tools and Measuring Devices	10.2.1 Tools and Measuring Devices (a) Demonstrates safe use of basic equipment and hand tools (b) Demonstrates basic tool maintenance procedures (c) Identifies measuring devices • linear • temperature • pressure • volume • consumption	10.2.1 Tools and Measuring Devices (a) Uses the correct tool for the job (b) Uses measuring devices	10.2.1 Tools and Measuring Devices (a) Demonstrates entry level ability to use • measuring devices • hand tools • maintenance procedures (b) Demonstrates appropriate safe use practices
10.2.2	Basic Plumbing	10.2.2 Basic Plumbing (a) Identifies basic equipment, tools and supplies used for plumbing (b) Identifies and describes basic terms related to plumbing • supply lines • drainage lines • vents • traps • fixtures (c) Identifies safety and sanitation rules	10.2.2 Basic Plumbing (a) Performs basic plumbing tasks (b) Demonstrates safe use practices	10.2.2 Basic Plumbing (a) Demonstrates entry level ability to perform basic plumbing tasks (b) Demonstrates safe use practices (c) Evaluates own performance

	Grade 10	Grade 11	Grade 12
10.2.3 Basic Electrical Work	10.2.3 Basic Electrical Work (a) identifies basic equipment, tools and supplies used in electrical maintenance (b) identifies and defines basic electrical terms and features (c) Demonstrates safety procedures (d) Reads a power meter (e) Resets timers and locks	10.2.3 Basic Electrical Work (a) Reviews Grade 10 unit (b) Demonstrates safe use electrical practices (c) Installs electrical components (d) Replaces simple light fixtures (e) Replaces bulbs and fuses (f) Resets breakers	10.2.3 Basic Electrical Work (a) Demonstrates entry level ability to carry out basic electrical maintenance tasks (b) Demonstrates safe use practices (c) Evaluates own performance
10.2.4 Basic Heating Systems Work	10.2.4 Basic Heating Systems Work (a) identifies and describes common heating systems and components • residential • industrial (b) Defines related terms, e.g. • boiler • valves • burners • fans • ducts • gauges • dampers (c) Describes seasonal use and maintenance of heating systems • residential • industrial (d) Identifies safety procedures	10.2.4 Basic Heating Systems Work (a) Reviews Grade 10 unit (b) Identifies tasks involved in basic care of heating systems (c) Resets controls (d) Identifies basic procedures to conserve energy	10.2.4 Basic Heating Systems Work (a) Demonstrates entry-level ability to carry out basic care of heating systems (b) Demonstrates safe use practices (c) Evaluates own performance
10.2.5 Ceramic Tile and Glass Care	10.2.5 Ceramic Tile and Glass Care (a) Identifies types of ceramic tile and their basic care	10.2.5 Ceramic Tile and Glass Care (a) Recognizes ceramic tile types and care methods (b) Identifies characteristics of glass • transparency • security • thickness (c) Identifies and describes function of a sealed window unit	10.2.5 Ceramic Tile and Glass Care (a) Demonstrates entry-level ability to care for tile and glass (b) Demonstrates safe use practices (c) Evaluates own performance

	Grade 10	Grade 11	Grade 12
		(d) Identifies safety procedures (e) Demonstrates safe use practices in care of tile and glass	
10.2.6 Carpet and Upholstery Cleaning	10.2.6 Carpet and Upholstery Cleaning	10.2.6 Carpet and Upholstery Cleaning Carpets (a) Identifies the history and construction of carpets (b) Identifies carpet fibres and materials (c) Identifies general cleaning methods (d) Demonstrates minor carpet repairs (e) Demonstrates soil and stain removal (f) Demonstrates general carpet maintenance (g) Demonstrates cleaning techniques: • shampooing • steam cleaning • extraction cleaning • dry chemical cleaning (h) Demonstrates safety procedures Upholstery (a) Identifies upholstery materials (b) Identifies soils and stains (c) Recognizes problems of mildew and odour (d) Demonstrates upholstery protection methods (e) Demonstrates use of static electricity protectors (f) Demonstrates safety procedures	10.2.6 Carpet and Upholstery Cleaning Carpets (a) Demonstrates entry-level ability to clean carpets (b) Demonstrates safe use practices (c) Evaluates own performance Upholstery (a) Demonstrates entry-level ability to clean upholstery (b) Demonstrates safe use practices (c) Evaluates own performance
10.2.7 Security Duties	10.2.7 Security Duties	10.2.7 Security Duties (a) Identifies the duties of security and protection for: • residential homes • institutions • private businesses	10.2.7 Security Duties (a) Identifies local security guard companies

	Grade 10	Grade 11	Grade 12
		(b) Identifies and demonstrates procedures related to building and property security: • access security • window security • property protection • handling lost and found items • equipment security • fire prevention	(b) Identifies and describes duties of security guard
		(c) Describes the relationship between security duties and other jobs in the maintenance and hospitality industry	(c) Maintains fire protection equipment
			(d) Demonstrates procedures for handling: • information requests • unauthorized entry • unauthorized presence • vandalism • belligerent and noisy people
10.2.8 General Custodial Duties	10.2.8 General Custodial Duties	10.2.8 General Custodial Duties (a) Identifies tasks performed by custodians in: • schools • apartments • hotels • office buildings	10.2.8 General Custodial Duties (a) Demonstrates entry-level competencies of a custodian
		(b) Demonstrates basic job skills: • removing and disposing of waste • dusting • using cleaning chemicals • using floor cleaning machines	(b) Demonstrates safe use practices
		(c) Identifies procedures for safe disposal of: • glass • chemicals • liquids	(c) Evaluates own performance
10.2.9 Basic Floor Care	10.2.9 Basic Floor Care	10.2.9 Basic Floor Care (a) Identifies types of floor surfaces	10.2.9 Basic Floor Care (a) Demonstrates entry-level procedures of floor care
		(b) Demonstrates wet scrubbing	(b) Demonstrates safe use practices

Grade 10	Grade 11	Grade 12
	(c) Demonstrates dry scrubbing (d) Demonstrates stripping (e) Demonstrates sealing and finishing (f) Demonstrates buffing (g) Demonstrates safe use practices	(c) Evaluates own performance
10.2.10 Special Area Maintenance	10.2.10 Special Area Maintenance	10.2.10 Special Area Maintenance	10.2.10 Special Area Maintenance
	General Duties (a) Identifies special areas • washrooms • locker rooms • offices • smoking lounges • chemical rooms (b) Identifies the maintenance duties related to each special area (c) Demonstrates cleaning a ceiling (d) Demonstrates washing a wall (e) Demonstrates cleaning chalkboards (f) Demonstrates cleaning light fixtures (g) Demonstrates cleaning furniture, glass, metals	General Duties (a) Demonstrates entry-level competencies to perform general duties (b) Demonstrates safe use practices (c) Evaluates own performance
	Infection Control (a) Identifies harmful bacteria (b) Identifies safe use of disinfectants (c) Demonstrates setting up and stocking a utility cart	Infection Control (a) Demonstrates entry-level infection control procedures (b) Demonstrates safe use practices (c) Evaluates own performance
	Washroom Cleaning and Maintenance (a) Demonstrates cleaning of all washroom fixtures (b) Demonstrates supply replenishment (c) Demonstrates infection control	Washroom Cleaning and Maintenance (a) Demonstrates entry-level procedures for washroom cleaning and maintenance (b) Demonstrates safe use practices (c) Evaluates own performance

Grade 10	Grade 11	Grade 12
	Locker Rooms/Shower Maintenance (a) Demonstrates cleaning of all repair fixtures and equipment (b) Demonstrates supply replacement (c) Demonstrates infection control	Locker Rooms/Shower Maintenance (a) Demonstrates entry-level procedures for locker room shower maintenance (b) Demonstrates safe use practices (c) Evaluates own performance
	Drinking Fountain Maintenance (a) Demonstrates sanitation procedures (b) Demonstrates own maintenance repair procedures	Drinking Fountain Maintenance (a) Demonstrates entry-level skills for basic drinking fountain maintenance (b) Demonstrates sanitary practices (c) Evaluates own performance
10.2.11 Housegeneral Cleaning person 40 000 blanket laundry done 10.2.11-10.2.13 may be introduced in Grades 10 and 11 and developed in Grade 12	10.2.11 Housegeneral Cleaningperson	10.2.11 Housegeneral Cleaningperson	10.2.11 Housegeneral Cleaningperson (a) Identifies knowledge and skills required for job (b) Identifies local job opportunities (c) Demonstrates ability to • clean rooms and hallways • sweep and mop floors • vacuum carpets • dust • empty waste • replace towels and soap • fill dispensing machines • clean rugs • change bedding • move furniture • make minor repairs (d) Demonstrates inventory control • stores used • stores supplies • requisitions new items • conserves equipment, tools, supplies and money

Grade 10	Grade 11	Grade 12
		(e) Demonstrates appropriate safety and sanitation practices (f) Evaluates own performance
10.2.12 Bellhop	10.2.12 Bellhop	10.2.12 Bellhop
		(a) Identifies knowledge and skills required for job (b) Identifies local job opportunities (c) Demonstrates ability to: • relate well to others • project a positive image • provide service to others • lift and carry luggage • use tact and consideration (d) Evaluates own performance
10.2.13 Desk Clerk	10.2.13 Desk Clerk	10.2.13 Desk Clerk
		(a) Identifies knowledge and skills required for job (b) Identifies local job opportunities (c) Demonstrates ability to: • relate well to others • project a positive image • deal with requests for information • check in guests • check out guests • handle complaints • receive and distribute communications and parcels • respond to emergencies • keep records • use correct credit procedures • work as a member of a team • follow instructions (d) Evaluates own performance

		Grade 10	Grade 11	Grade 12
10.3	**Work Standards**	10.3 **Work Standards** (a) Identifies related standards • sanitation • safety • security • personal (b) Maintains standards set by teacher supervisor	10.3 **Work Standards** (a) Demonstrates ability to work to standards set by teacher supervisor	10.3 **Work Standards** (a) Demonstrates employment level standards in each job-related area (b) Evaluates own performance
10.4	**Supplies Management**	10.4 **Supplies Management** (a) Identifies good supply management strategies • inventory control • storage • security	10.4 **Supplies Management** (a) Describes job-specific supply management strategies • carpet/upholstery cleaning • basic floor care • special area maintenance • infection control • washroom maintenance • locker room/shower maintenance • drinking fountain maintenance	10.4 **Supplies Management** (a) Demonstrates supply management skills appropriate to each job area (b) Evaluates own performance
10.5	**Work Area Management**	10.5 **Work Area Management** (a) Recognizes need for regular care and maintenance in each work area (b) Maintains a safe, clean work area	10.5 **Work Area Management** (a) Lists the care and maintenance duties according to accepted schedules (b) Maintains a safe, clean work area	10.5 **Work Area Management** (a) Demonstrates leadership and initiative (b) Maintains a safe, clean work area (c) Evaluates own performance

INTEGRATED OCCUPATIONAL PROGRAM

OCCUPATIONAL COMPONENT

SCOPE AND SEQUENCE

Occupational Cluster: Transportation

Occupational Course: **AUTOMOTIVE SERVICES**

Course Sequence: Automotive Services 16-26-36

Notes: 1. Automotive Services 16 emphasizes skill development in the area of fluid and component replacement rather than repair.

2. Automotive Services 26 and 36 emphasize skill development in the area of repairs and the use of knowledge and skills learned in Automotive Services 16.

3. Students indicating an interest in automotives should be encouraged to consider taking the Service Station Services sequence.

GENERAL OBJECTIVES

1. To develop students' personal and interpersonal skills.
2. To develop students' awareness of opportunities and working conditions in the automotive servicing industry.
3. To develop students' knowledge and skills in basic vehicle servicing.
4. To enable students to obtain employment or continue education and/or to articulate with another secondary program or join the military institution for further education.

	Grade 10	Grade 11	Grade 12
10 WORK SKILLS			
10.1 Identification			
10.1.1 Job Scope	10.1.1 **Job Scope** (a) Identifies job opportunities in automotive servicing industry (b) Identifies related jobs (c) Identifies job duties for positions in the automotive servicing industry (d) Identifies tasks done by entry-level employees (e) Identifies automotive trade terms	10.1.1 **Job Scope** (a) Defines automotive trade terms (b) Describes work of experienced	10.1.1 **Job Scope** (a) Identifies future career opportunities (b) Conducts a job search
10.1.2 Equipment, Tools and Supplies	10.1.2 **Equipment, Tools and Supplies** (a) Identifies major equipment and tools used in servicing vehicles	10.1.2 **Equipment, Tools and Supplies** (a) Takes inventory of major items: • equipment • tools • supplies	10.1.2 **Equipment, Tools and Supplies** (a) Identifies and records condition of equipment and tools

			(d) Performs a road vehicle inspection (e) Demonstrates the ability to identify road conditions of • steering and suspension • wheels • drive line • exhaust • tires • electrical • engine
10.2 Equipment, Tools and Supplies Usage	10.2 Equipment, Tools and Supplies Usage (a) Demonstrates ability to use basic automotive equipment and tools • wrenches • jacks • hammers • screwdrivers • punches and chisels • crimping tools • vises • files, saws and accessories • bench, pillar, valve grinding tools	10.2 Equipment, Tools and Supplies Usage (a) Demonstrates ability to use basic equipment and tools in combination to achieve specific tasks (b) Demonstrates use of cutting torches (c) Demonstrates use of blocks • compressor • air pressure • vacuum • coolant • other (d) Demonstrates the use of measuring equipment • micrometers • others	10.2 Equipment, Tools and Supplies Usage (a) Demonstrates ability to use skills in using basic equipment, tools, testers and measuring devices (b) Demonstrates the use of electrical testing equipment • voltage • current • readings (c) Demonstrates safe use of acids
10.2.1 Car Cleaning	10.2.1 Car Cleaning (a) Identifies the proper tools and equipment for cleaning a car	10.2.1 Car Cleaning (a) Demonstrates proper and safe use of cleaning products	10.2.1 Car Cleaning (a) Demonstrates safe and proper use of cleaning

Grade 10	Grade 11	Grade 12
(i) Demonstrates ability to clean a car inside and out • hand wash • pressure wash • vacuum • detail		(i) Evaluates own performance
10.2.2 Basic Automotive Maintenance (a) Identifies basic maintenance services and their charges • oil and oil filter • tune-up • belts • hoses • bulbs • tire pressure	10.2.2 Basic Automotive Maintenance (a) Demonstrates ability to perform basic maintenance services • fuel filters • windshield wiper blades	10.2.2 Basic Automotive Maintenance (a) Demonstrates ability to perform basic maintenance services
(b) Demonstrates basic maintenance services	(b) Recognizes and completes products used for basic maintenance services • manufacturer • cost • quality • warranty	(b) Writes a sales or work orders
(c) Checks and adjusts vehicle fluid levels	(c) Demonstrates ability to perform tire work • identifies tire types • explains tire codes • diagnoses tire wear • rotates • mounts and dismounts • repairs • balances	(c) Calculates work order costs
(d) Identifies tasks involved in basic tire servicing • tire changing • tire repair • tire balancing		
10.2.3 Mechanical Services (a) Diagnoses common auto problems by • sight • sound • smell • customer information • instruments	10.2.3 Mechanical Services (a) Identifies the meanings of "troubleshooting" and "tune up"	10.2.3 Mechanical Services (a) Identifies the components of the charging system

Grade 10	Grade 11	Grade 12
(10) Demonstrates the ability to replace exhaust system parts.	(10) Identifies the function and parts of fuel system components.	(9) Identifies problems related to the charging system: • battery • alternator • voltage regulator • wiring
(11) Demonstrates ability to repair minor leaks.	(11) Demonstrates ability to perform basic services on carburetors: • disassembles and reassembles carburetors • simple adjustments	(10) Identifies the components of the starting system.
(12) Demonstrates safe practices used in automotive servicing.	(12) Identifies symptoms, causes of: • starting problems • lack of power • knocks and noises • surging • overheating • excessive emissions	(11) Recognizes problems related to the starting system: • starter • solenoid • wiring • battery
	(13) Demonstrates ability to replace major components: • engine • transmission • clutch • rear axle assembly	(12) Demonstrates entry-level ability to identify basic problems and possible causes of car problems and to assist mechanic in performing services.
	(14) Demonstrates ability to replace shock absorbers.	(13) Demonstrates entry-level safe practices.
	(15) Demonstrates ability to replace brake shoes and pads.	(14) Demonstrates entry-level ability to adjust carburetors: • fuel air mixtures • idle speeds • choke setting
	(16) Demonstrates basic brake maintenance procedures.	(15) Demonstrates ability to adjust ignitions: • plugs • ignition timing
	(17) Maintains safe practices.	(16) Evaluates own performance.

		Grade 10	Grade 11	Grade 12
10.3	Work Standards	10.3 **Work Standards** (a) Identifies the use of standards in the industry (b) Identifies industry safety standards (c) Maintains standards set by teacher supervisor	10.3 **Work Standards** (a) Demonstrates ability to follow instructions (b) Demonstrates ability to record information related to job (c) Maintains standards set by teacher supervisor	10.3 **Work Standards** (a) Demonstrates pride in work (b) Demonstrates employment level standards of performance (c) Maintains standards set by teacher supervisor (d) Evaluates own performance
10.4	Supplies Management	10.4 **Supplies Management** (a) Identifies appropriate supply management strategies • inventory control • storage • security	10.4 **Supplies Management** (a) Identifies and lists local suppliers of wholesale and retail goods and services	10.4 **Supplies Management** (a) Demonstrates entry-level supply management skills (b) Evaluates own performance
10.5	Work Area Management	10.5 **Work Area Management** (a) Identifies the people who commonly work in the same environment as the role does (b) Identifies technical references (c) Maintains clean, safe work area	10.5 **Work Area Management** (a) Lists and prepares a summary of legal and workplace duties (b) Uses technical references (c) Maintains clean, safe work area	10.5 **Work Area Management** (a) Demonstrates leadership and initiative (b) Locates specific technical references (c) Maintains clean, safe work area (d) Evaluates own performance

INTEGRATED OCCUPATIONAL PROGRAM

OCCUPATIONAL COMPONENT

SCOPE AND SEQUENCE

Occupational Cluster: Transportation

Occupational Course: **SERVICE STATION SERVICES**

Course Sequence: Service Station Services 16-26-36

Notes:
1. Service Station Services 16 focuses on front end operations and minor repairs.
2. Service Station Service 26-36 focuses on sales skills, general vehicle servicing and business practices.
3. Students indicating an interest in automotives should be encouraged to consider taking the Automotives Services sequence.

GENERAL OBJECTIVES

1. To develop students' personal and interpersonal skills.
2. To develop students' awareness of opportunities and employment conditions in the operation of a service station.
3. To develop students' knowledge and skills in service station services.
4. To enable students to obtain employment in a related occupation, and/or to articulate with another secondary program or post-secondary institution for further education.

	Grade 10	Grade 11	Grade 12
10.	**WORK SKILLS**		
10.1.	**Identification**		
10.1.1	**Job Scope** (a) Identifies the extent of the service station industry. (b) Identifies careers related to service station services. (c) Identifies scope of related jobs. (d) Identifies job requirements. (e) Recognizes procedures for finding a job.	**Job Scope** (a) Lists scope of related jobs. (b) Demonstrates correct job search procedures. (c) Describes the careers of the oil and gas industry. (d) Identifies the scopes of the service station business. (e) Identifies present and possible future types of service stations.	**Job Scope** (a) Identifies job opportunities in the community. (b) Demonstrates a job search. (c) Identifies future career opportunities in the service station industry.
10.1.2	**Equipment, Tools and Supplies** (a) Identifies equipment and tools related to service station services.	**Equipment, Tools and Supplies** (a) Inventories equipment, tools and supplies of a service station.	**Equipment, Tools and Supplies** (a) Identifies and records condition of equipment, tools and major supply items.

		Grade 10	Grade 11	Grade 12
		(b) Describes the use of major equipment (c) Identifies products commonly sold at service stations (d) Identifies supplies used in operating a service station (e) Identifies measuring tools • meters • rulers		(c) Identifies measuring tools • micrometers • calipers
10.2	Equipment, Tools and Supplies Usage	10.2 Equipment, Tools and Supplies Usage (a) Demonstrates the ability to use basic equipment and tools • fuel pumps • shop equipment • sales equipment • hand tools (b) Reads meters (c) Identifies various other reference material (d) Identifies various types of fuel (e) Identifies standard safety practices	10.2 Equipment, Tools and Supplies Usage (a) Demonstrates the use of basic equipment and tools • hoists • floor jacks • impact wrench • tune machine (b) Uses shop reference material with practice (c) Records meter readings (d) Uses basic hand tools (e) Demonstrates standard safety practices	10.2 Equipment, Tools and Supplies Usage (a) Demonstrates entry level competencies with tools, equipment and supplies • air hammer • oxyacetylene torch (b) Uses shop reference material (c) Uses industry related hand tools and equipment (d) Demonstrates safe use practices (e) Evaluates own performance
10.2.1	Sales Office Operation	10.2.1 Sales Office Operation (a) Identifies the functions of a sales office (b) Identifies the range of tasks in a sales office (c) Identifies the cash control system (d) Identifies the credit control system	10.2.1 Sales Office Operation (a) Identifies and records transactions using • manual methods • mechanical methods (b) Recognizes security procedures for handling cash, cheques and supplies	10.2.1 Sales Office Operation (a) Demonstrates the operation of a sales office (b) Demonstrates good customer relations (c) Demonstrates effective sales techniques (d) Demonstrates appropriate record keeping practices • gas sales • other sales

	Grade 10	Grade 11	Grade 12
	(m) Identifies the operating procedures for recording • gas sales • product sales • service sales (n) Demonstrates ability to serve gas (o) Demonstrates ability to provide customer services • pumping gas • fluid checks • washing windows • cleaning mirrors • providing information		(m) Prices stock and follows stock control practices (n) Calculates costs, sales, profit and loss (o) Evaluates own performance
10.2.2 Hoisting and Lifting	10.2.2 Hoisting and Lifting (a) Identifies lifting procedures (b) Demonstrates lifting procedures • hoists • floor jacks	10.2.2 Hoisting and Lifting (a) Demonstrates use of hoist and lift on different sizes, types of vehicles (b) Demonstrates standard safety practices	10.2.2 Hoisting and Lifting (a) Demonstrates entry level skills in using hoists, lifts (b) Demonstrates safe use practices (c) Evaluates own performance
10.2.3 Inspections	10.2.3 Inspections (a) Identifies the items checked in a basic vehicle inspection	10.2.3 Inspections (a) Demonstrates techniques of performing a basic vehicle check • under hood check • under vehicle check • safety inspection	10.2.3 Inspections (a) Demonstrates entry level vehicle inspection skills (b) Follows accepted safety practices (c) Evaluates own performance
10.2.4 Tire Service	10.2.4 Tire Service (a) Identifies the sequence of tasks to • change a tire • rotate wheels • balance wheels • adjust tire inflation (b) Demonstrates standard safety practices	10.2.4 Tire Service (a) Demonstrates ability to repair tires • plug method • patch method (b) Demonstrates ability to • change a tire • rotate wheels • balance wheel • repair tires • inflate tires to specification	10.2.4 Tire Service (a) Demonstrates entry level skill in wheel and tire handling and maintenance (b) Follows accepted safety practices

	Grade 10	Grade 11	Grade 12
		(b) Demonstrates standard safety practices	(c) Evaluates own performance
10.2.4 Lubrication Service	10.2.4 Lubrication Service (a) Identifies basic lubrication services (b) Performs basic lubrication checks	10.2.4 Lubrication Service (a) Demonstrates a complete oil and filter change service (b) Demonstrates the ability to perform chassis lubrication (c) Demonstrates the ability to check lubrication levels (d) Demonstrates standard safety practices	10.2.4 Lubrication Service (a) Demonstrates entry-level lubrication skills (b) Demonstrates entry-level safety practices (c) Evaluates own performance
10.2.5 Electrical Systems	10.2.5 Electrical Systems (a) Identifies basic point of sale electrical repairs/replacements (b) Demonstrates standard safety practices (c) Demonstrates battery charging	10.2.5 Electrical Systems (a) Demonstrates basic point of sale electrical repair/replacement: • battery replacement • battery cable clamp • fuse replacement • bulb replacement (b) Services a battery	10.2.5 Electrical Systems (a) Demonstrates entry-level point of sale basic electrical repair/replacement techniques (b) Demonstrates entry-level safety practices (c) Evaluates own performance
10.2.6 Cooling Systems	10.2.6 Cooling Systems (a) Identifies the basic principles of the cooling system (b) Identifies the basic parts of a car's cooling system (c) Demonstrates standard safety practices	10.2.6 Cooling Systems (a) Pressure tests a cooling system (b) Flushes cooling system (c) Tests coolant strength (d) Replaces hoses (e) Demonstrates standard safety practices	10.2.6 Cooling Systems (a) Demonstrates entry-level ability to provide basic maintenance to a cooling system (b) Demonstrates entry-level standard safety practices (c) Evaluates own performance
10.2.8 Fuel Systems	10.2.8 Fuel Systems (a) Identifies the types and grades of fuel (b) Demonstrates standard safety practices when handling liquid fuels	10.2.8 Fuel Systems (a) Identifies the differences between grades and types of fuel (b) Demonstrates correct selection of fuel grade and type for specific vehicles (c) Demonstrates standard safety practices	10.2.8 Fuel Systems (a) Demonstrates entry-level skills in pumping gas (b) Demonstrates entry-level skills in providing basic maintenance to a fuel system (c) Demonstrates entry-level safety practices

Grade 10	Grade 11	Grade 12
10.2.9 Business Practices	10.2.9 Business Practices	10.2.9 Business Practices
(a) identifies the basic principles of good business practice	(a) identifies and describes the skills and knowledge required to operate a service station	(a) describes differences between sales and service
(b) defines • salesmanship • service • marketing	(b) identifies and describes the competitive aspect of the oil and gas industry	(b) describes steps to start up a service station operation
(c) identifies need for knowledge of customers	(c) calls and describes marketing strategies • advertising • promoting • displaying	(c) demonstrates sales and marketing strategies
	(d) completes work orders	(d) identifies and describes marketing strategies used by service stations in the community
	(e) completes credit card invoices	(e) completes basic deposit forms
	(f) completes sales records	(f) completes a staff work schedule
	(g) understands and defines a petty cash system	(g) takes inventory of stock
	(h) identifies and records stock levels	(h) evaluates own performance
10.2.10 Related Services	10.2.10 Related Services	10.2.10 Related Services
(a) identifies other services commonly offered at service stations	(a) identifies types of related services • convenience store • coffee shop • car wash • other	(a) demonstrates ability and desire to work in a related service area • convenience store • car wash • coffee shop
	(b) recognizes role of related services operations	
10.3 **Work Standards**	10.3 **Work Standards**	10.3 **Work Standards**
(a) identifies safety regulations governing service station operations	(a) demonstrates ability to work to accepted standards	(a) demonstrates pride in work
(b) identifies labour regulations related to industry	(b) demonstrates ability to record information • hours worked • services performed • sales	(b) demonstrates ability and standards of performance • safety • security • skill • candour

		Grade 10	Grade 11	Grade 12
		(c) Identifies sanitary regulations related to service station operations (d) Maintains work standards	(c) Maintains work standards	(c) Works to standards (d) Evaluates own performance
10.4	Supplies Management	**Supplies Management** (a) Identifies appropriate supply management strategies • inventory control • storage • security	**Supplies Management** (a) Identifies and lists major suppliers of petroleum products in local service stations	**Supplies Management** (a) Demonstrates entry-level supply management skills (b) Evaluates own performance
10.5	Work Area Management	**Work Area Management** (a) Identifies the procedures used to care for and maintain facilities, equipment and tools (b) Recognizes the need for a safe, clean work environment (c) Maintains a safe, clean work area	**Work Area Management** (a) Lists and prepares a schedule of care and maintenance duties necessary performance of a service station (b) Maintains a clean, safe work area	**Work Area Management** (a) Demonstrates maintenance and cleaning (b) Works with others to maintain work area to accepted standards (c) Evaluates own performance

INTEGRATED OCCUPATIONAL PROGRAM

OCCUPATIONAL COMPONENT

SCOPE AND SEQUENCE

Occupational Cluster: Transportation

Occupational Course: **WAREHOUSE SERVICES**

Course Sequence: Warehouse Services 16-26-36

GENERAL OBJECTIVES

1. To develop students' personal and interpersonal skills.
2. To develop students' awareness of opportunities and employment conditions in the warehouse services industry.
3. To develop students' knowledge and skills in one or more areas of warehousing, receiving and packaging and delivery.
4. To enable students to obtain employment in a related occupation and/or to articulate with another secondary program or post-secondary institution for further education.

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10. WORK SKILLS

10.1 Identification

10.1.1 Job Scope

		Grade 10	Grade 11	Grade 12
10.1.2	Terminology	10.1.2 Terminology (a) Identifies warehouse terminology (b) Identifies symbols and labels (c) Uses cases correctly	10.1.2 Terminology (a) Lists and defines describes industry terminology (b) Uses symbols to identify products	10.1.2 Terminology (a) Uses industry terminology (b) Recognizes the major parts of the Ware Housemen's Lien Act
10.1.3	Equipment, Tools and Supplies	10.1.3 Equipment, Tools and Supplies (a) Identifies common equipment, tools and supplies (b) Identifies containers used in warehousing (c) Identifies and describes function of storage containers • racking • bins • manual shelving • mini storage (d) Recognizes need for safety, sanitation and security	10.1.3 Equipment, Tools and Supplies (a) Lists and describes function of equipment and tools commonly used in army (b) Takes inventory of major equipment, tools, supplies (c) Demonstrates knowledge of safety, security and sanitation practices (d) Identifies bar code labels (e) Identifies content care labels	10.1.3 Equipment, Tools and Supplies (a) Identifies and records condition of equipment and tools (b) Demonstrates entry level skills in safe, secure and sanitary practices
10.2	Equipment, Tools and Supplies Usage	10.2 Equipment, Tools and Supplies Usage	10.2 Equipment, Tools and Supplies Usage	10.2 Equipment, Tools and Supplies Usage
10.2.1	Lifting, Carrying and Placing	10.2.1 Lifting, Carrying and Placing (a) Identifies mechanics of lifting, carrying and placing of a load (b) Identifies stacking patterns • blocked • row • brick • pinwheel (c) Identifies basic safety practices (d) Recognizes safe use practices for equipment and tools	10.2.1 Lifting, Carrying and Placing (a) Demonstrates correct mechanics of lifting, carrying and placing (b) Demonstrates four stacking patterns (c) Demonstrates the use of storage equipment (d) Describes three major tip set up factors • height • weight • turnover rate	10.2.1 Lifting, Carrying and Placing (a) Demonstrates lifting, carrying, placing and stacking practices to entry-level standards (b) Demonstrates proper methods of safe removal of damaged goods (c) Demonstrates entry level safety procedures (d) Evaluates own performance

Grade 10	Grade 11	Grade 12
(c) Prepares and completes receipt forms (d) identifies part of completed sale's requisition (e) identifies main areas of a purchase order • buyer • vendor • quantities • product descriptions		
10.2.4 Shipping (a) identifies the process and function of shipping (b) identifies a receiving clerk's duties	10.2.4 Shipping (a) Identifies and completes a shipping record (b) Packs and ships an order	10.2.4 Shipping (a) Maintains shipping records in order sequence
10.2.5 Receiving (a) identifies receiving procedures (b) identifies procedures for handling claims • shortages • damages • shortages (c) identifies receiving safety practices	10.2.5 Receiving (a) Completes a receiving document (b) Demonstrates procedures to • unpack received goods • check received goods • evaluate quality of goods • reports goods discrepancies (c) Demonstrates standard safety practices	10.2.5 Receiving (a) Demonstrates basic entry-level skills in receiving products (b) Demonstrates standard safety practices (c) Evaluates ability to handle receipt of goods
10.2.6 Carriers (a) Identifies the function of carriers (b) identifies six carrier types • motor freight • parcel post • air freight • rail • couriers • waterway carriers	10.2.6 Carriers (a) Lists and describes the advantage of each type of carrier (b) Identifies Alberta and local carriers (c) Selects suitable carriers for shipments (d) Explains the purpose of clearance	10.2.6 Carriers (a) Identifies types of carriers used by warehouses in the community (b) Identifies types of product commonly carried by different types of carriers

	Grade 10	Grade 11	Grade 12
10.2.7 Types of Warehouses	10.2.7 Types of Warehouses (a) identifies types of warehouses	10.2.7 Types of Warehouses (a) describes a "special commodity" warehouse	10.2.7 Types of Warehouses (a) identifies local factors that may determine warehouse types and locations
10.2.8 Uses of Space	10.2.8 Uses of Space (a) identifies "space use" as a major factor in warehouse efficiency (b) identifies methods used to conserve floor space	10.2.8 Uses of Space (a) Explains the term "unit load" (b) Recognizes three major goals of material handling • minimum handling • fast handling • effective use of facilities (c) Describes "palletization"	10.2.8 Uses of Space (a) Selects appropriate storage unit for specific products (b) Identifies systems of stock location • random • weight • product line (c) Evaluates the systems before, during and after use
10.2.9 Material Handling	10.2.9 Material Handling (a) identifies the meaning of term "material handling"	10.2.9 Material Handling (a) Identifies First In First Out (FIFO) method of stock control (b) identifies product types requiring FIFO	10.2.9 Material Handling (a) Describes the FIFO method of stock control (b) Identifies the requirements of a warehouse using FIFO
10.2.10 Parts Sales and Services	10.2.10 Parts Sales and Services (a) identifies the purpose of inventories (b) identifies methods of taking inventory (c) Completes an inventory of personal assets • clothes • sports goods • books	10.2.10 Parts Sales and Services (a) identifies and describes the types of parts sales and services (b) identifies parts sales and services businesses in the community (c) Lists the major features of a stockroom warehouse • auto parts • machine parts • grain handling • fruit, vegetables	10.2.10 Parts Sales and Services (a) Identifies and describes the terms "customer loyalty" "repeat business" "service" (b) Demonstrates basic sales and customer relations techniques (c) Identifies good sales technique (d) Evaluates own sales and service performance

			Grade 11		Grade 12		
10.3	Work Standards	10.3	**Work Standards** (a) Identifies the need for standards (b) Identifies elements requiring standards and assesses the appropriateness of standards in relation to: • safety • quality • economy • efficiency	10.3	**Work Standards** (a) Demonstrates ability to work to acceptable standards set by supervisor	10.3	**Work Standards** (a) Demonstrates pride in work (b) Demonstrates safety and standards of performance
10.4	Supplies Management	10.4	**Supplies Management** (a) Identifies the importance of supply safety and control (b) Lists types of supplies required for assigned work activities	10.4	**Supplies Management** (a) Inventories supplies and equipment (b) Uses supplies and equipment efficiently and effectively	10.4	**Supplies Management** (a) Demonstrates safety and quality consciousness (b) Evaluates own performance
10.5	Work Area Management	10.5	**Work Area Management** (a) Organizes and maintains work area (b) Identifies hazards and safety precautions in work area	10.5	**Work Area Management** (a) Identifies and describes hazards and safe work practices in assigned work area (b) Maintains a safe work area	10.5	**Work Area Management** (a) Demonstrates leadership and initiative (b) Works with others to maintain safe work practices (c) Evaluates own performance

ADDENDUM

Addendum to Integrated Occupational Program Program of Studies/Curriculum Guides 16-Level Courses

COMMUNITY PARTNERSHIPS

School administrators and teachers are advised that the **APPLICATION FOR APPROVAL OF WORK SITES/STATIONS** (Parts A and B) must be completed for each work site/station at which an Integrated Occupational Program (I.O.P.) student is placed.

In addition, each student involved in any off-campus I.O.P. learning activity must be registered by the school/school jurisdiction as being placed in an approved work site/station.

Specific procedures and legislation about work experience (community partnerships) is provided in the following documents:

Alberta Education Program Policy Manual
(Available upon written request from Central Support Services,
11160 Jasper Avenue, Edmonton, Alberta, T5K 0L2.)

Work Experience Program. Teacher Resource Manual Junior and Senior High School,
Alberta Education, 1990
(Available from the Learning Resources Distributing Centre,
12360-142 Street, Edmonton, Alberta, T5L 4X9.)